M series Models

COMBINATION OF SINGLE SPILIT TYPE

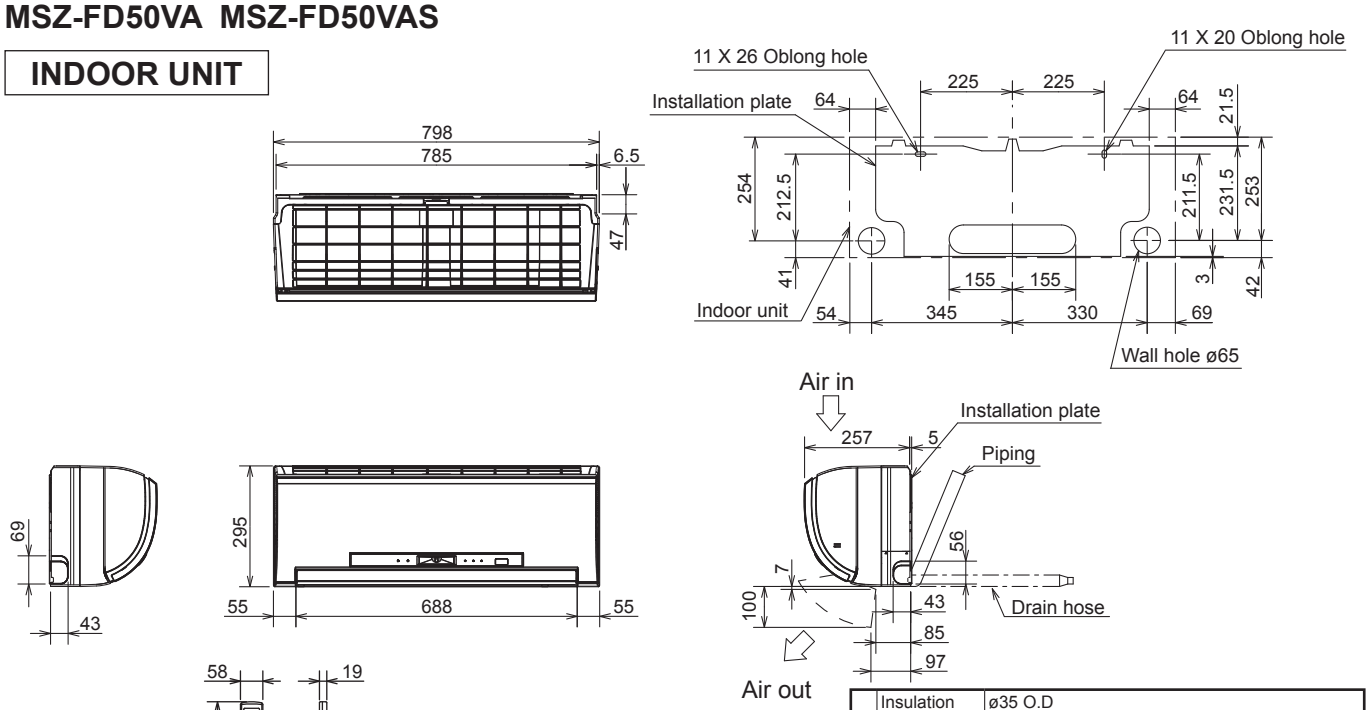
Type			Model Name			
			Indoor unit		Outdoor unit	
Wall- Mounted	Fixed-Speed	Cooling only	MSC-GE20VB	E1	MU-GA20VB	E3
			MSC-GE25VB	E1	MU-GA25VB	E2
			MSC-GE35VB	E1	MU-GA35VB	E3
			MS-GE50VB	E1	MU-GE50VB	E1
			MS-GA60VB	E1	MU-GA60VB	E1
			MS-GD80VB	E1	MU-GD80VB	E1
		Heat pump	MSC-GE20VB	E1	MUH-GA20VB	E2
			MSC-GE25VB	E1	MUH-GA25VB	E3
			MSC-GE35VB	E1	MUH-GA35VB	E3
			MSH-GE50VB	E1	MUH-GE50VB	E1
			MSH-GA60VB	E1	MUH-GA60VB	E1
			MSH-GD80VB	E1	MUH-GD80VB	E1
	Inverter	Heat pump	MSZ-FD25VA	E2	MUZ-FD25VA	E1
					MUZ-FD25VABH	E1
			MSZ-FD25VAS	E2	MUZ-FD25VA	E1
					MUZ-FD25VABH	E1
			MSZ-FD35VA	E2	MUZ-FD35VA	E1
					MUZ-FD35VABH	E1
			MSZ-FD35VAS	E2	MUZ-FD35VA	E1
					MUZ-FD35VABH	E1
			MSZ-FD50VA	E2	MUZ-FD50VA	E1
					MUZ-FD50VABH	E1
			MSZ-FD50VAS	E2	MUZ-FD50VA	E1
					MUZ-FD50VABH	E1
			MSZ-GE22VA	E1	for MXZ connection only	
			MSZ-GE25VA	E1	MUZ-GE25VA	E1
					MUZ-GE25VAH	E1
			MSZ-GE35VA	E1	MUZ-GE35VA	E1
					MUZ-GE35VAH	E1
			MSZ-GE42VA	E1	MUZ-GE42VA	E1
					MUZ-GE42VAH	E1
			MSZ-GE50VA	E1	MUZ-GE50VA	E1
					MUZ-GE50VAH	E1
			MSZ-GE60VA	E1	MUZ-GE60VA	E1
			MSZ-GE71VA	E1	MUZ-GE71VA	E1
			MSZ-HC25VA	E1	MUZ-HC25VA	E1
			MSZ-HC35VA	E2	MUZ-HC35VA	E2
			MSZ-HC35VAB	E2	MUZ-HC35VAB	E2
			MSZ-SF15VA	E1	for MXZ connection only	
			MSZ-SF20VA	E1		
Floor-Standing	Inverter	Heat pump	MFZ-KA25VA	E4	SUZ-KA25VAR1	
					SUZ-KA25VAHR1	
			MFZ-KA35VA	E4	SUZ-KA35VAR1	
					SUZ-KA35VAHR1	
			MFZ-KA50VA	E4	SUZ-KA50VAR2	
Ceiling Cassette	Inverter	Heat pump	MLZ-KA25VA	E2	for MXZ connection only	
			MLZ-KA35V	E2	for MXZ connection only	
			MLZ-KA50VA	E2	for MXZ connection only	

Type	Indoor unit	Inverter Models Heat pump type Outdoor unit								
		MXZ-8A140VA	MXZ-5B100VAE1	MXZ-4B80VAE1	MXZ-4B71VAE1	MXZ-3B68VAE1	MXZ-3B54VAE1	MXZ-2B52VAE1	MXZ-2B40VAE1	MXZ-2B30VAE1
Wall mounted	MSZ-FD25VA	●	●	●	●	●	●	●	●	●
	MSZ-FD25VAS	●	●	●	●	●	●	●	●	●
	MSZ-FD35VA	●	●	●	●	●	●	●	●	
	MSZ-FD35VAS	●	●	●	●	●	●	●	●	
	MSZ-FD50VA	●	●	●	●	●	●			
	MSZ-FD50VAS	●	●	●	●	●	●			
	MSZ-GE22VA	●	●	●	●	●	●	●	●	●
	MSZ-GE25VA	●	●	●	●	●	●	●	●	●
	MSZ-GE35VA	●	●	●	●	●	●	●	●	
	MSZ-GE42VA	●	●	●	●	●	●	●		
	MSZ-GE50VA	●	●	●	●	●	●			
	MSZ-GE60VA	●	●	●	●	●				
	MSZ-GE71VA	●	●	●						
	MSZ-SF15VA	●	●	●	●	●	●	●	●	●
	MSZ-SF20VA	●	●	●	●	●	●	●	●	●
Floor standing	MFZ-KA25VA	●	●	●	●	●	●	●	●	●
	MFZ-KA35VA	●	●	●	●	●	●	●	●	
	MFZ-KA50VA	●	●	●	●	●	●			
Ceiling suspended	PCA-RP50KA		●	●	●	●	●			
	PCA-RP60KA		●	●	●	●				
	PCA-RP71KA		●	●						
Ceiling Cassette	MLZ-KA25VA	●	●	●	●	●	●	●	●	●
	MLZ-KA35VA	●	●	●	●	●	●	●	●	
	MLZ-KA50VA	●	●	●	●	●	●			
	SLZ-KA25VA(L)	●	●	●	●	●	●	●	●	●
	SLZ-KA35VA(L)	●	●	●	●	●	●	●	●	
	SLZ-KA50VA(L)	●	●	●	●	●	●			
	PLA-RP35BA	●								
	PLA-RP50BA	●	●	●	●	●	●			
	PLA-RP60BA	●	●	●	●	●				
	PLA-RP71BA	●	●	●						
	PLA-RP71BA2	●	●	●						
Ceiling concealed	SEZ-KD25VA(L)	●	●	●	●	●	●	●	●	●
	SEZ-KD35VA(L)	●	●	●	●	●	●	●	●	
	SEZ-KD50VA(L)	●	●	●	●	●	●			
	SEZ-KD60VA(L)	●	●	●	●	●				
	SEZ-KD71VA(L)	●	●	●						
	PEAD-RP50JA	●	●	●	●	●	●			
	PEAD-RP60JA	●	●	●						
	PEAD-RP71JA	●	●	●						

Unit: mm

MSZ-FD25VA MSZ-FD25VAS MSZ-FD35VA MSZ-FD35VAS MSZ-FD50VA MSZ-FD50VAS

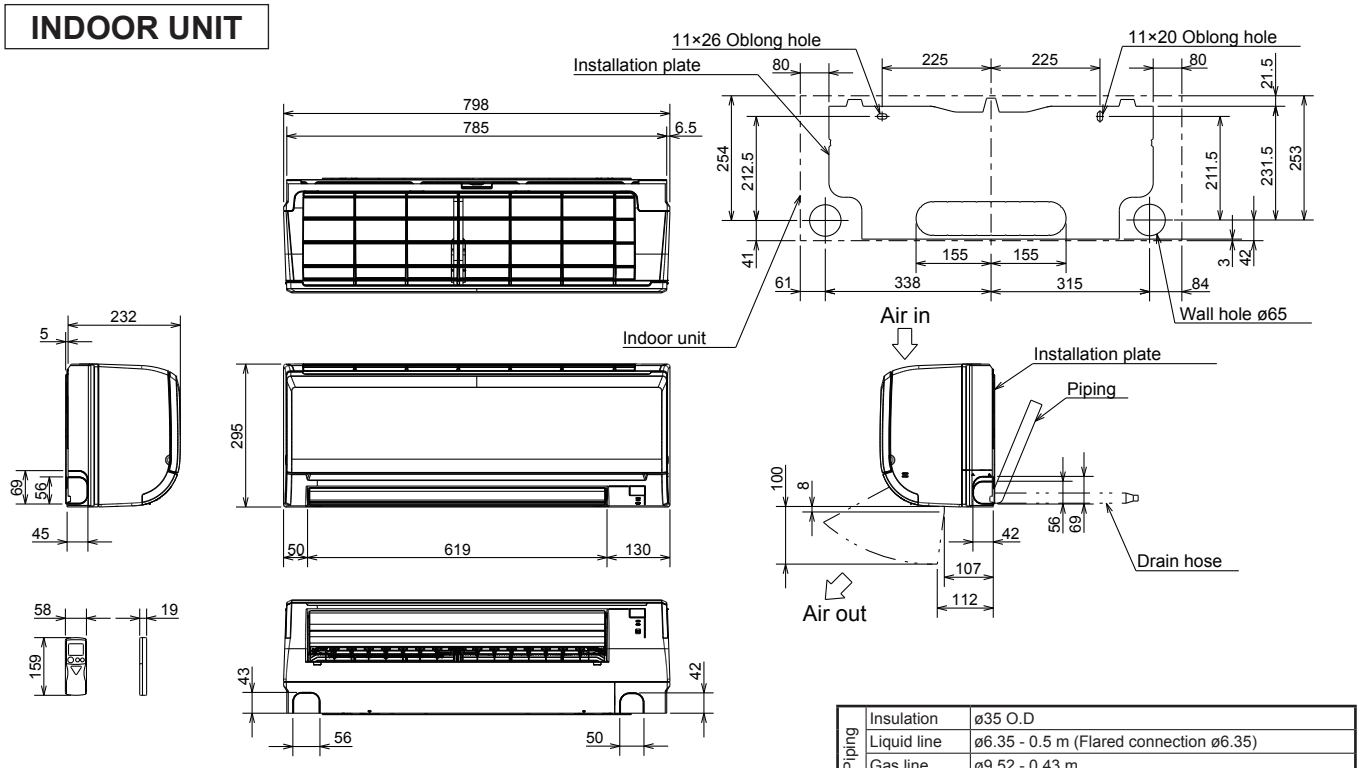
INDOOR UNIT



Piping	Insulation	ø35 O.D
	Liquid line	ø7 - 0.5 m (Flared connection ø6.35)
	Gas line	**25/35**: ø9.52 - 0.43 m (Flared connection ø9.52) **50**: ø9.52 - 0.43 m (Flared connection ø12.7)
Drain hose		Insulation ø28 O.D Connected part ø16 O.D

MSZ-GE22VA MSZ-GE25VA MSZ-GE35VA MSZ-GE42VA MSZ-GE50VA

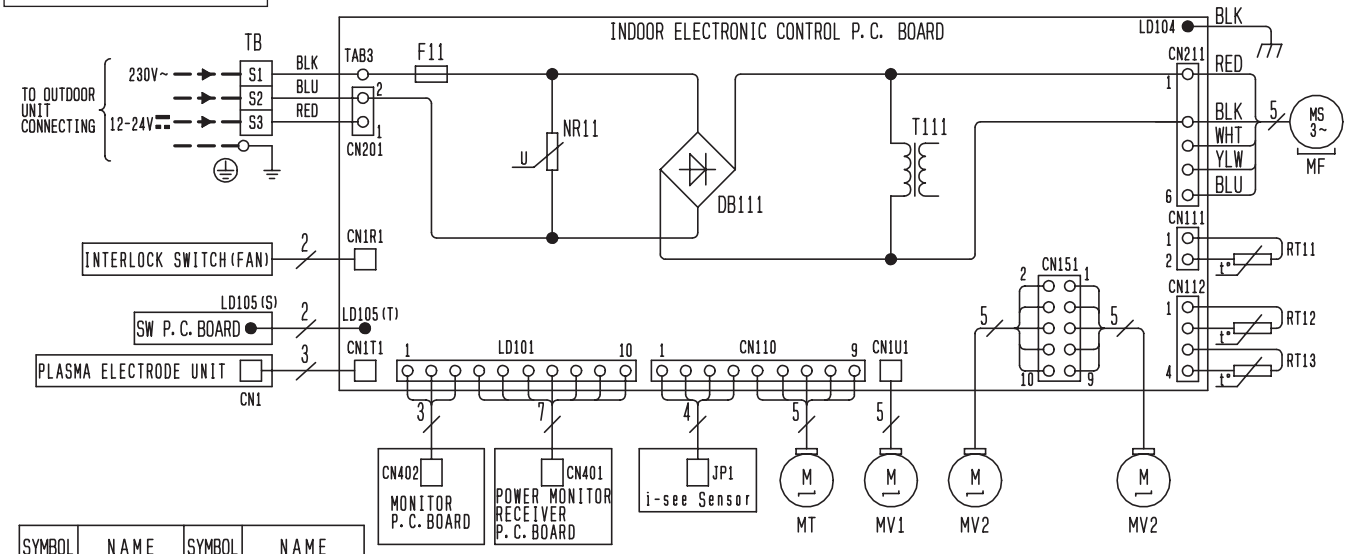
INDOOR UNIT



Piping	Insulation	ø35 O.D
	Liquid line	ø6.35 - 0.5 m (Flared connection ø6.35)
	Gas line	ø9.52 - 0.43 m (Flared connection: ø9.52 (**22/25/35/42**), ø12.7 (**50**))
Drain hose		Insulation ø28 O.D Connected part ø16 O.D

MSZ-FD25VA MSZ-FD25VAS MSZ-FD35VA MSZ-FD35VAS MSZ-FD50VA MSZ-FD50VAS

INDOOR UNIT

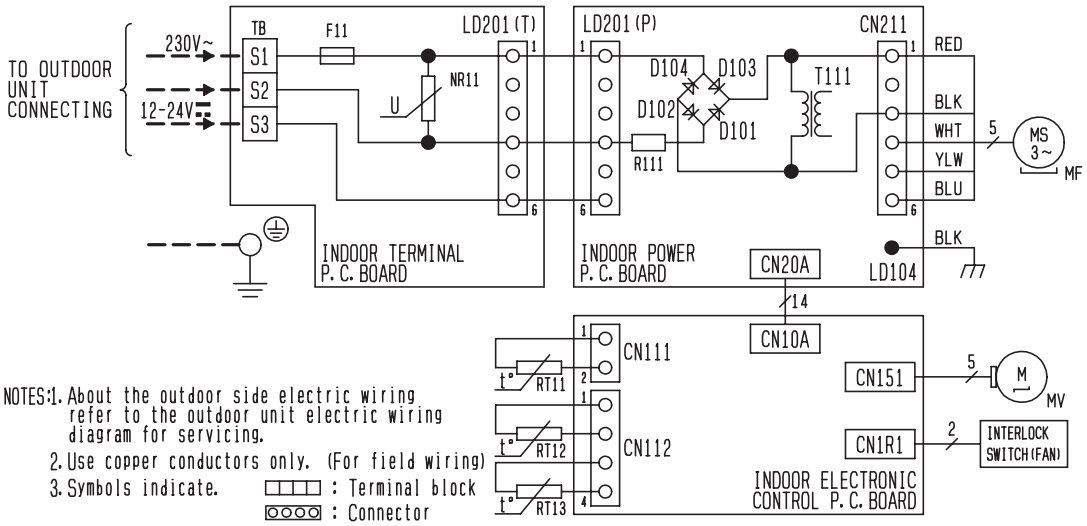


SYMBOL	NAME	SYMBOL	NAME
DB111	DIODE STACK	NR11	VARISTOR
F11	FUSE (T3.15AL250V)	RT11	ROOM TEMP. THERMISTOR
MF	FAN MOTOR	RT12	COIL TEMP. THERMISTOR (MAIN)
MT	i-see Sensor MOTOR	RT13	COIL TEMP. THERMISTOR (SUB)
MV1	VANE MOTOR (HORIZONTAL)	T111	TRANSFORMER
MV2	VANE MOTOR (VERTICAL)	TB	TERMINAL BLOCK

NOTES: 1. About the outdoor side electric wiring refer to the outdoor unit electric wiring diagram for servicing.
2. Use copper conductors only. (For field wiring)
3. Symbols below indicate.
□□□ : Terminal block
⊙⊙⊙⊙ : Connector

MSZ-GE22VA MSZ-GE25VA MSZ-GE35VA

INDOOR UNIT



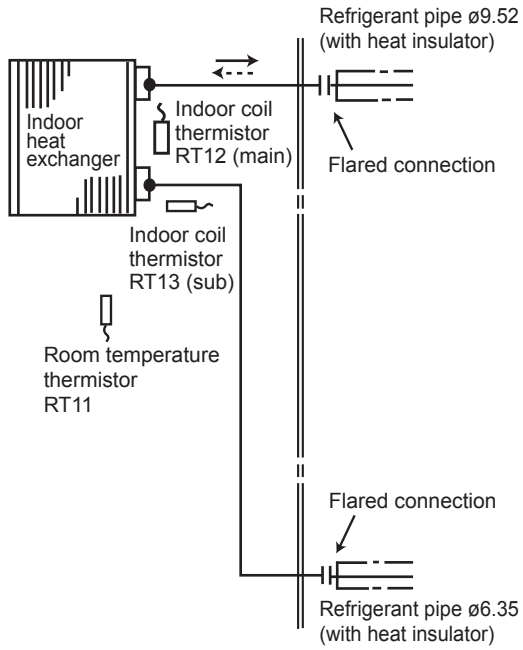
SYMBOL	NAME
D101~D104	DIODE
F11	FUSE (T3.15AL250V)
MF	FAN MOTOR
MV	VANE MOTOR (HORIZONTAL)
NR11	VARISTOR
R111	RESISTOR (3.9Ω/5W)
RT11	ROOM TEMP. THERMISTOR
RT12	COIL TEMP. THERMISTOR (MAIN)
RT13	COIL TEMP. THERMISTOR (SUB)
T111	TRANSFORMER
TB	TERMINAL BLOCK

NOTES: 1. About the outdoor side electric wiring refer to the outdoor unit electric wiring diagram for servicing.
2. Use copper conductors only. (For field wiring)
3. Symbols indicate. □□□ : Terminal block ⊙⊙⊙⊙ : Connector

Unit: mm

MSZ-GE22VA

INDOOR UNIT



For MXZ connection

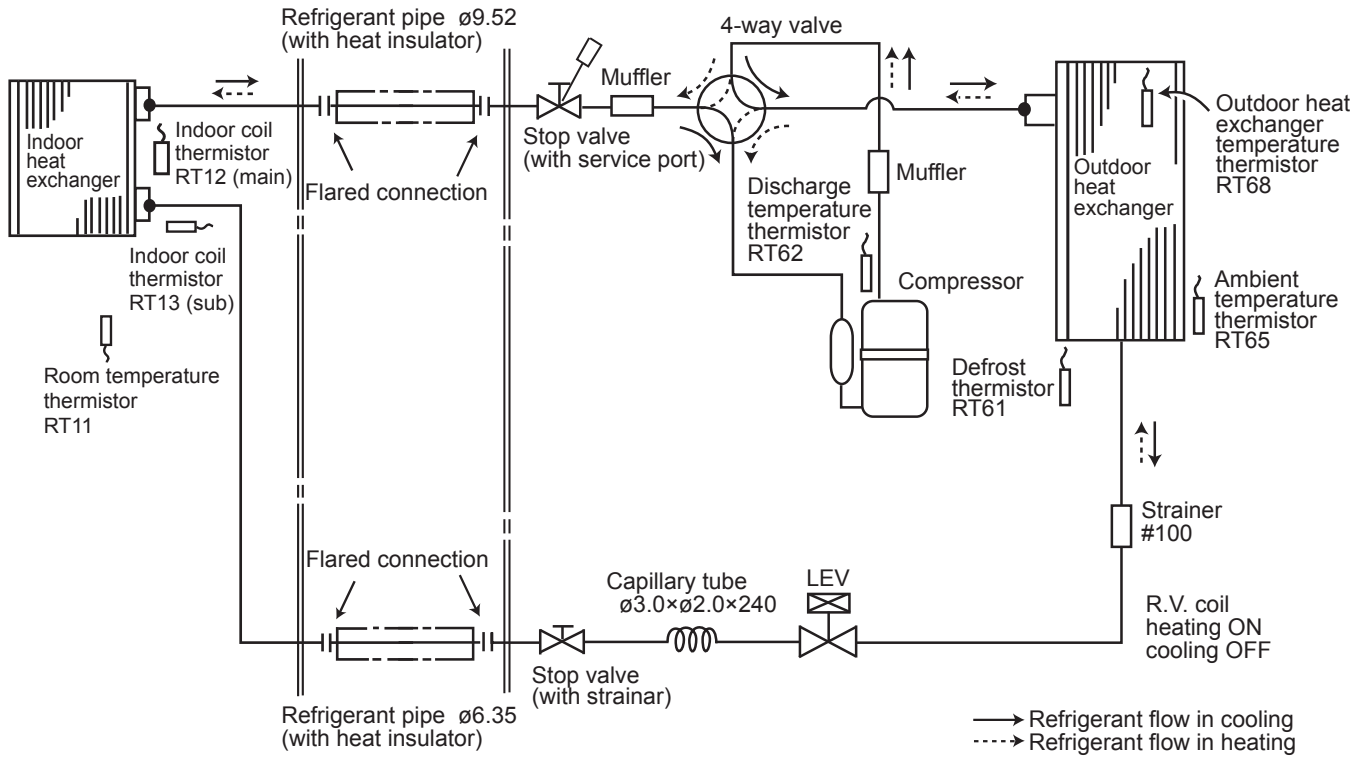
Refrigerant flow in cooling
Refrigerant flow in heating

MSZ-GE25VA

INDOOR UNIT

MUZ-GE25VA
MUZ-GE25VAH

OUTDOOR UNIT



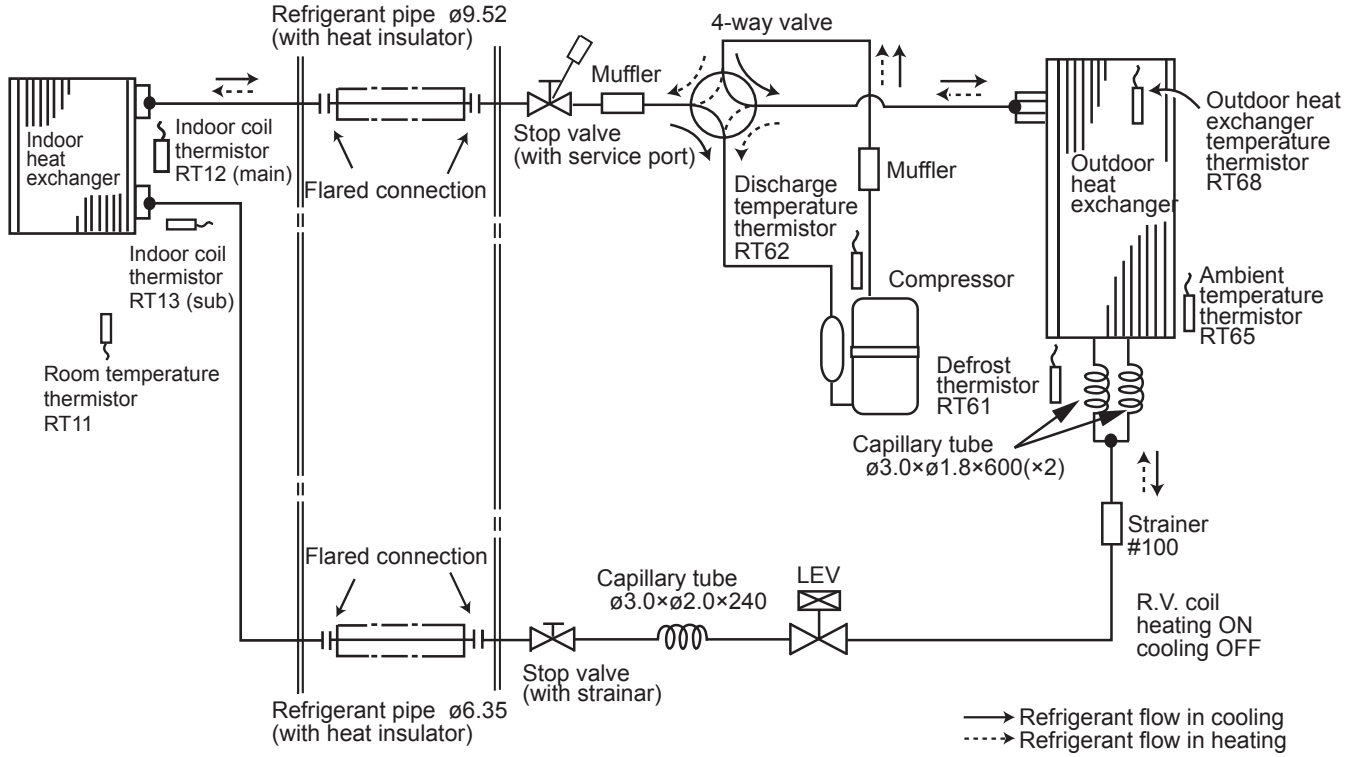
Unit: mm

MSZ-GE35VA
MSZ-GE42VA

MUZ-GE35VA
MUZ-GE35VAH
MUZ-GE42VA
MUZ-GE42VAH

INDOOR UNIT

OUTDOOR UNIT

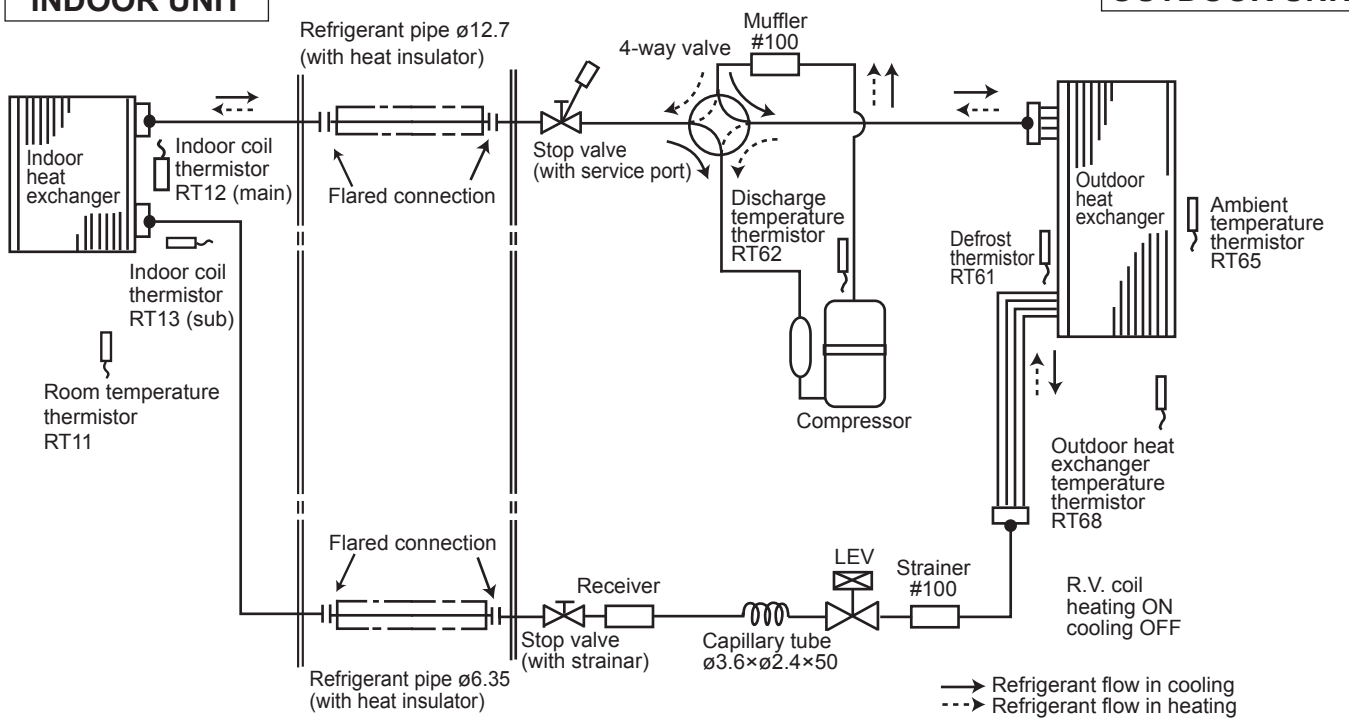


MSZ-GE50VA

MUZ-GE50VA
MUZ-GE50VAH

INDOOR UNIT

OUTDOOR UNIT



COOL operation at Rated frequency

MSZ-GE25VA: MUZ-GE25VA MUZ-GE25VAH

CAPACITY: 2.5 kW SHF: 0.96 INPUT: 545 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)															
		21				25				27				30			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	2.94	2.29	0.78	436	2.81	2.19	0.78	458	2.70	2.11	0.78	480	2.60	2.03	0.78	501
21	20	3.06	2.02	0.66	458	2.94	1.94	0.66	485	2.85	1.88	0.66	496	2.75	1.82	0.66	518
22	18	2.94	2.41	0.82	436	2.81	2.31	0.82	458	2.70	2.21	0.82	480	2.60	2.13	0.82	501
22	20	3.06	2.14	0.70	458	2.94	2.06	0.70	485	2.85	2.00	0.70	496	2.75	1.93	0.70	518
22	22	3.19	1.85	0.58	474	3.08	1.78	0.58	504	3.00	1.74	0.58	518	2.88	1.67	0.58	540
23	18	2.94	2.53	0.86	436	2.81	2.42	0.86	458	2.70	2.32	0.86	480	2.60	2.24	0.86	501
23	20	3.06	2.27	0.74	458	2.94	2.17	0.74	485	2.85	2.11	0.74	496	2.75	2.04	0.74	518
23	22	3.19	1.98	0.62	474	3.08	1.91	0.62	504	3.00	1.86	0.62	518	2.88	1.78	0.62	540
24	18	2.94	2.64	0.90	436	2.81	2.53	0.90	458	2.70	2.43	0.90	480	2.60	2.34	0.90	501
24	20	3.06	2.39	0.78	458	2.94	2.29	0.78	485	2.85	2.22	0.78	496	2.75	2.15	0.78	518
24	22	3.19	2.10	0.66	474	3.08	2.03	0.66	504	3.00	1.98	0.66	518	2.88	1.90	0.66	540
24	24	3.35	1.81	0.54	496	3.23	1.74	0.54	523	3.15	1.70	0.54	540	3.05	1.65	0.54	567
25	18	2.94	2.76	0.94	436	2.81	2.64	0.94	458	2.70	2.54	0.94	480	2.60	2.44	0.94	501
25	20	3.06	2.51	0.82	458	2.94	2.41	0.82	485	2.85	2.34	0.82	496	2.75	2.26	0.82	518
25	22	3.19	2.23	0.70	474	3.08	2.15	0.70	504	3.00	2.10	0.70	518	2.88	2.01	0.70	540
25	24	3.35	1.94	0.58	496	3.23	1.87	0.58	523	3.15	1.83	0.58	540	3.05	1.77	0.58	567
26	18	2.94	2.88	0.98	436	2.81	2.76	0.98	458	2.70	2.65	0.98	480	2.60	2.55	0.98	501
26	20	3.06	2.63	0.86	458	2.94	2.53	0.86	485	2.85	2.45	0.86	496	2.75	2.37	0.86	518
26	22	3.19	2.36	0.74	474	3.08	2.28	0.74	504	3.00	2.22	0.74	518	2.88	2.13	0.74	540
26	24	3.35	2.08	0.62	496	3.23	2.00	0.62	523	3.15	1.95	0.62	540	3.05	1.89	0.62	567
26	26	3.45	1.73	0.50	523	3.35	1.68	0.50	550	3.30	1.65	0.50	567	3.20	1.60	0.50	583
27	18	2.94	2.94	1.00	436	2.81	2.81	1.00	458	2.70	2.70	1.00	480	2.60	2.60	1.00	501
27	20	3.06	2.76	0.90	458	2.94	2.64	0.90	485	2.85	2.57	0.90	496	2.75	2.48	0.90	518
27	22	3.19	2.49	0.78	474	3.08	2.40	0.78	504	3.00	2.34	0.78	518	2.88	2.24	0.78	540
27	24	3.35	2.21	0.66	496	3.23	2.13	0.66	523	3.15	2.08	0.66	540	3.05	2.01	0.66	567
27	26	3.45	1.86	0.54	523	3.35	1.81	0.54	550	3.30	1.78	0.54	567	3.20	1.73	0.54	583
28	18	2.94	2.94	1.00	436	2.81	2.81	1.00	458	2.70	2.70	1.00	480	2.60	2.60	1.00	501
28	20	3.06	2.88	0.94	458	2.94	2.76	0.94	485	2.85	2.68	0.94	496	2.75	2.59	0.94	518
28	22	3.19	2.61	0.82	474	3.08	2.52	0.82	504	3.00	2.46	0.82	518	2.88	2.36	0.82	540
28	24	3.35	2.35	0.70	496	3.23	2.26	0.70	523	3.15	2.21	0.70	540	3.05	2.14	0.70	567
28	26	3.45	2.00	0.58	523	3.35	1.94	0.58	550	3.30	1.91	0.58	567	3.20	1.86	0.58	583
29	18	2.94	2.94	1.00	436	2.81	2.81	1.00	458	2.70	2.70	1.00	480	2.60	2.60	1.00	501
29	20	3.06	3.00	0.98	458	2.94	2.88	0.98	485	2.85	2.79	0.98	496	2.75	2.70	0.98	518
29	22	3.19	2.74	0.86	474	3.08	2.64	0.86	504	3.00	2.58	0.86	518	2.88	2.47	0.86	540
29	24	3.35	2.48	0.74	496	3.23	2.39	0.74	523	3.15	2.33	0.74	540	3.05	2.26	0.74	567
29	26	3.45	2.14	0.62	523	3.35	2.08	0.62	550	3.30	2.05	0.62	567	3.20	1.98	0.62	583
30	18	2.94	2.94	1.00	436	2.81	2.81	1.00	458	2.70	2.70	1.00	480	2.60	2.60	1.00	501
30	20	3.06	3.06	1.00	458	2.94	2.94	1.00	485	2.85	2.85	1.00	496	2.75	2.75	1.00	518
30	22	3.19	2.87	0.90	474	3.08	2.77	0.90	504	3.00	2.70	0.90	518	2.88	2.59	0.90	540
30	24	3.35	2.61	0.78	496	3.23	2.52	0.78	523	3.15	2.46	0.78	540	3.05	2.38	0.78	567
30	26	3.45	2.28	0.66	523	3.35	2.21	0.66	550	3.30	2.18	0.66	567	3.20	2.11	0.66	583
31	18	2.94	2.94	1.00	436	2.81	2.81	1.00	458	2.70	2.70	1.00	480	2.60	2.60	1.00	501
31	20	3.06	3.06	1.00	458	2.94	2.94	1.00	485	2.85	2.85	1.00	496	2.75	2.75	1.00	518
31	22	3.19	3.00	0.94	474	3.08	2.89	0.94	504	3.00	2.82	0.94	518	2.88	2.70	0.94	540
31	24	3.35	2.75	0.82	496	3.23	2.64	0.82	523	3.15	2.58	0.82	540	3.05	2.50	0.82	567
31	26	3.45	2.42	0.70	523	3.35	2.35	0.70	550	3.30	2.31	0.70	567	3.20	2.24	0.70	583
32	18	2.94	2.94	1.00	436	2.81	2.81	1.00	458	2.70	2.70	1.00	480	2.60	2.60	1.00	501
32	20	3.06	3.06	1.00	458	2.94	2.94	1.00	485	2.85	2.85	1.00	496	2.75	2.75	1.00	518
32	22	3.19	3.12	0.98	474	3.08	3.01	0.98	504	3.00	2.94	0.98	518	2.88	2.82	0.98	540
32	24	3.35	2.88	0.86	496	3.23	2.77	0.86	523	3.15	2.71	0.86	540	3.05	2.62	0.86	567
32	26	3.45	2.55	0.74	523	3.35	2.48	0.74	550	3.30	2.44	0.74	567	3.20	2.37	0.74	583

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

COOL operation at Rated frequency

MSZ-GE25VA: MUZ-GE25VA MUZ-GE25VAH

CAPACITY: 2.5 kW SHF: 0.96 INPUT: 545 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)											
		35				40				46			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	2.45	1.91	0.78	534	2.25	1.76	0.78	567	2.08	1.62	0.78	589
21	20	2.58	1.70	0.66	556	2.40	1.58	0.66	583	2.23	1.47	0.66	616
22	18	2.45	2.01	0.82	534	2.25	1.85	0.82	567	2.08	1.70	0.82	589
22	20	2.58	1.80	0.70	556	2.40	1.68	0.70	583	2.23	1.56	0.70	616
22	22	2.73	1.58	0.58	578	2.55	1.48	0.58	610	2.38	1.38	0.58	632
23	18	2.45	2.11	0.86	534	2.25	1.94	0.86	567	2.08	1.78	0.86	589
23	20	2.58	1.91	0.74	556	2.40	1.78	0.74	583	2.23	1.65	0.74	616
23	22	2.73	1.69	0.62	578	2.55	1.58	0.62	610	2.38	1.47	0.62	632
24	18	2.45	2.21	0.90	534	2.25	2.03	0.90	567	2.08	1.87	0.90	589
24	20	2.58	2.01	0.78	556	2.40	1.87	0.78	583	2.23	1.74	0.78	616
24	22	2.73	1.80	0.66	578	2.55	1.68	0.66	610	2.38	1.57	0.66	632
24	24	2.88	1.55	0.54	600	2.70	1.46	0.54	627	2.55	1.38	0.54	654
25	18	2.45	2.30	0.94	534	2.25	2.12	0.94	567	2.08	1.95	0.94	589
25	20	2.58	2.11	0.82	556	2.40	1.97	0.82	583	2.23	1.82	0.82	616
25	22	2.73	1.91	0.70	578	2.55	1.79	0.70	610	2.38	1.66	0.70	632
25	24	2.88	1.67	0.58	600	2.70	1.57	0.58	627	2.55	1.48	0.58	654
26	18	2.45	2.40	0.98	534	2.25	2.21	0.98	567	2.08	2.03	0.98	589
26	20	2.58	2.21	0.86	556	2.40	2.06	0.86	583	2.23	1.91	0.86	616
26	22	2.73	2.02	0.74	578	2.55	1.89	0.74	610	2.38	1.76	0.74	632
26	24	2.88	1.78	0.62	600	2.70	1.67	0.62	627	2.55	1.58	0.62	654
26	26	3.03	1.51	0.50	621	2.85	1.43	0.50	649	2.68	1.34	0.50	676
27	18	2.45	2.45	1.00	534	2.25	2.25	1.00	567	2.08	2.08	1.00	589
27	20	2.58	2.32	0.90	556	2.40	2.16	0.90	583	2.23	2.00	0.90	616
27	22	2.73	2.13	0.78	578	2.55	1.99	0.78	610	2.38	1.85	0.78	632
27	24	2.88	1.90	0.66	600	2.70	1.78	0.66	627	2.55	1.68	0.66	654
27	26	3.03	1.63	0.54	621	2.85	1.54	0.54	649	2.68	1.44	0.54	676
28	18	2.45	2.45	1.00	534	2.25	2.25	1.00	567	2.08	2.08	1.00	589
28	20	2.58	2.42	0.94	556	2.40	2.26	0.94	583	2.23	2.09	0.94	616
28	22	2.73	2.23	0.82	578	2.55	2.09	0.82	610	2.38	1.95	0.82	632
28	24	2.88	2.01	0.70	600	2.70	1.89	0.70	627	2.55	1.79	0.70	654
28	26	3.03	1.75	0.58	621	2.85	1.65	0.58	649	2.68	1.55	0.58	676
29	18	2.45	2.45	1.00	534	2.25	2.25	1.00	567	2.08	2.08	1.00	589
29	20	2.58	2.52	0.98	556	2.40	2.35	0.98	583	2.23	2.18	0.98	616
29	22	2.73	2.34	0.86	578	2.55	2.19	0.86	610	2.38	2.04	0.86	632
29	24	2.88	2.13	0.74	600	2.70	2.00	0.74	627	2.55	1.89	0.74	654
29	26	3.03	1.88	0.62	621	2.85	1.77	0.62	649	2.68	1.66	0.62	676
30	18	2.45	2.45	1.00	534	2.25	2.25	1.00	567	2.08	2.08	1.00	589
30	20	2.58	2.58	1.00	556	2.40	2.40	1.00	583	2.23	2.23	1.00	616
30	22	2.73	2.45	0.90	578	2.55	2.30	0.90	610	2.38	2.14	0.90	632
30	24	2.88	2.24	0.78	600	2.70	2.11	0.78	627	2.55	1.99	0.78	654
30	26	3.03	2.00	0.66	621	2.85	1.88	0.66	649	2.68	1.77	0.66	676
31	18	2.45	2.45	1.00	534	2.25	2.25	1.00	567	2.08	2.08	1.00	589
31	20	2.58	2.58	1.00	556	2.40	2.40	1.00	583	2.23	2.23	1.00	616
31	22	2.73	2.56	0.94	578	2.55	2.40	0.94	610	2.38	2.23	0.94	632
31	24	2.88	2.36	0.82	600	2.70	2.21	0.82	627	2.55	2.09	0.82	654
31	26	3.03	2.12	0.70	621	2.85	2.00	0.70	649	2.68	1.87	0.70	676
32	18	2.45	2.45	1.00	534	2.25	2.25	1.00	567	2.08	2.08	1.00	589
32	20	2.58	2.58	1.00	556	2.40	2.40	1.00	583	2.23	2.23	1.00	616
32	22	2.73	2.67	0.98	578	2.55	2.50	0.98	610	2.38	2.33	0.98	632
32	24	2.88	2.47	0.86	600	2.70	2.32	0.86	627	2.55	2.19	0.86	654
32	26	3.03	2.24	0.74	621	2.85	2.11	0.74	649	2.68	1.98	0.74	676

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

COOL operation at Rated frequency

MSZ-GE35VA: MUZ-GE35VA MUZ-GE35VAH

CAPACITY: 3.5 kW SHF: 0.82 INPUT: 865 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)															
		21				25				27				30			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	4.11	2.63	0.64	692	3.94	2.52	0.64	727	3.78	2.42	0.64	761	3.64	2.33	0.64	796
21	20	4.29	2.23	0.52	727	4.11	2.14	0.52	770	3.99	2.07	0.52	787	3.85	2.00	0.52	822
22	18	4.11	2.80	0.68	692	3.94	2.68	0.68	727	3.78	2.57	0.68	761	3.64	2.48	0.68	796
22	20	4.29	2.40	0.56	727	4.11	2.30	0.56	770	3.99	2.23	0.56	787	3.85	2.16	0.56	822
22	22	4.46	1.96	0.44	753	4.31	1.89	0.44	800	4.20	1.85	0.44	822	4.03	1.77	0.44	856
23	18	4.11	2.96	0.72	692	3.94	2.84	0.72	727	3.78	2.72	0.72	761	3.64	2.62	0.72	796
23	20	4.29	2.57	0.60	727	4.11	2.47	0.60	770	3.99	2.39	0.60	787	3.85	2.31	0.60	822
23	22	4.46	2.14	0.48	753	4.31	2.07	0.48	800	4.20	2.02	0.48	822	4.03	1.93	0.48	856
24	18	4.11	3.13	0.76	692	3.94	2.99	0.76	727	3.78	2.87	0.76	761	3.64	2.77	0.76	796
24	20	4.29	2.74	0.64	727	4.11	2.63	0.64	770	3.99	2.55	0.64	787	3.85	2.46	0.64	822
24	22	4.46	2.32	0.52	753	4.31	2.24	0.52	800	4.20	2.18	0.52	822	4.03	2.09	0.52	856
24	24	4.69	1.88	0.40	787	4.52	1.81	0.40	830	4.41	1.76	0.40	856	4.27	1.71	0.40	900
25	18	4.11	3.29	0.80	692	3.94	3.15	0.80	727	3.78	3.02	0.80	761	3.64	2.91	0.80	796
25	20	4.29	2.92	0.68	727	4.11	2.80	0.68	770	3.99	2.71	0.68	787	3.85	2.62	0.68	822
25	22	4.46	2.50	0.56	753	4.31	2.41	0.56	800	4.20	2.35	0.56	822	4.03	2.25	0.56	856
25	24	4.69	2.06	0.44	787	4.52	1.99	0.44	830	4.41	1.94	0.44	856	4.27	1.88	0.44	900
26	18	4.11	3.45	0.84	692	3.94	3.31	0.84	727	3.78	3.18	0.84	761	3.64	3.06	0.84	796
26	20	4.29	3.09	0.72	727	4.11	2.96	0.72	770	3.99	2.87	0.72	787	3.85	2.77	0.72	822
26	22	4.46	2.68	0.60	753	4.31	2.58	0.60	800	4.20	2.52	0.60	822	4.03	2.42	0.60	856
26	24	4.69	2.25	0.48	787	4.52	2.17	0.48	830	4.41	2.12	0.48	856	4.27	2.05	0.48	900
26	26	4.83	1.74	0.36	830	4.69	1.69	0.36	874	4.62	1.66	0.36	900	4.48	1.61	0.36	926
27	18	4.11	3.62	0.88	692	3.94	3.47	0.88	727	3.78	3.33	0.88	761	3.64	3.20	0.88	796
27	20	4.29	3.26	0.76	727	4.11	3.13	0.76	770	3.99	3.03	0.76	787	3.85	2.93	0.76	822
27	22	4.46	2.86	0.64	753	4.31	2.76	0.64	800	4.20	2.69	0.64	822	4.03	2.58	0.64	856
27	24	4.69	2.44	0.52	787	4.52	2.35	0.52	830	4.41	2.29	0.52	856	4.27	2.22	0.52	900
27	26	4.83	1.93	0.40	830	4.69	1.88	0.40	874	4.62	1.85	0.40	900	4.48	1.79	0.40	926
28	18	4.11	3.78	0.92	692	3.94	3.62	0.92	727	3.78	3.48	0.92	761	3.64	3.35	0.92	796
28	20	4.29	3.43	0.80	727	4.11	3.29	0.80	770	3.99	3.19	0.80	787	3.85	3.08	0.80	822
28	22	4.46	3.03	0.68	753	4.31	2.93	0.68	800	4.20	2.86	0.68	822	4.03	2.74	0.68	856
28	24	4.69	2.63	0.56	787	4.52	2.53	0.56	830	4.41	2.47	0.56	856	4.27	2.39	0.56	900
28	26	4.83	2.13	0.44	830	4.69	2.06	0.44	874	4.62	2.03	0.44	900	4.48	1.97	0.44	926
29	18	4.11	3.95	0.96	692	3.94	3.78	0.96	727	3.78	3.63	0.96	761	3.64	3.49	0.96	796
29	20	4.29	3.60	0.84	727	4.11	3.45	0.84	770	3.99	3.35	0.84	787	3.85	3.23	0.84	822
29	22	4.46	3.21	0.72	753	4.31	3.10	0.72	800	4.20	3.02	0.72	822	4.03	2.90	0.72	856
29	24	4.69	2.81	0.60	787	4.52	2.71	0.60	830	4.41	2.65	0.60	856	4.27	2.56	0.60	900
29	26	4.83	2.32	0.48	830	4.69	2.25	0.48	874	4.62	2.22	0.48	900	4.48	2.15	0.48	926
30	18	4.11	4.11	1.00	692	3.94	3.94	1.00	727	3.78	3.78	1.00	761	3.64	3.64	1.00	796
30	20	4.29	3.77	0.88	727	4.11	3.62	0.88	770	3.99	3.51	0.88	787	3.85	3.39	0.88	822
30	22	4.46	3.39	0.76	753	4.31	3.27	0.76	800	4.20	3.19	0.76	822	4.03	3.06	0.76	856
30	24	4.69	3.00	0.64	787	4.52	2.89	0.64	830	4.41	2.82	0.64	856	4.27	2.73	0.64	900
30	26	4.83	2.51	0.52	830	4.69	2.44	0.52	874	4.62	2.40	0.52	900	4.48	2.33	0.52	926
31	18	4.11	4.11	1.00	692	3.94	3.94	1.00	727	3.78	3.78	1.00	761	3.64	3.64	1.00	796
31	20	4.29	3.94	0.92	727	4.11	3.78	0.92	770	3.99	3.67	0.92	787	3.85	3.54	0.92	822
31	22	4.46	3.57	0.80	753	4.31	3.44	0.80	800	4.20	3.36	0.80	822	4.03	3.22	0.80	856
31	24	4.69	3.19	0.68	787	4.52	3.07	0.68	830	4.41	3.00	0.68	856	4.27	2.90	0.68	900
31	26	4.83	2.70	0.56	830	4.69	2.63	0.56	874	4.62	2.59	0.56	900	4.48	2.51	0.56	926
32	18	4.11	4.11	1.00	692	3.94	3.94	1.00	727	3.78	3.78	1.00	761	3.64	3.64	1.00	796
32	20	4.29	4.12	0.96	727	4.11	3.95	0.96	770	3.99	3.83	0.96	787	3.85	3.70	0.96	822
32	22	4.46	3.75	0.84	753	4.31	3.62	0.84	800	4.20	3.53	0.84	822	4.03	3.38	0.84	856
32	24	4.69	3.38	0.72	787	4.52	3.25	0.72	830	4.41	3.18	0.72	856	4.27	3.07	0.72	900
32	26	4.83	2.90	0.60	830	4.69	2.81	0.60	874	4.62	2.77	0.60	900	4.48	2.69	0.60	926

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

COOL operation at Rated frequency

MSZ-GE35VA: MUZ-GE35VA MUZ-GE35VAH

CAPACITY: 3.5 kW SHF: 0.82 INPUT: 865 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)											
		35				40				46			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	3.43	2.20	0.64	848	3.15	2.02	0.64	900	2.91	1.86	0.64	934
21	20	3.61	1.87	0.52	882	3.36	1.75	0.52	926	3.12	1.62	0.52	977
22	18	3.43	2.33	0.68	848	3.15	2.14	0.68	900	2.91	1.98	0.68	934
22	20	3.61	2.02	0.56	882	3.36	1.88	0.56	926	3.12	1.74	0.56	977
22	22	3.82	1.68	0.44	917	3.57	1.57	0.44	969	3.33	1.46	0.44	1003
23	18	3.43	2.47	0.72	848	3.15	2.27	0.72	900	2.91	2.09	0.72	934
23	20	3.61	2.16	0.60	882	3.36	2.02	0.60	926	3.12	1.87	0.60	977
23	22	3.82	1.83	0.48	917	3.57	1.71	0.48	969	3.33	1.60	0.48	1003
24	18	3.43	2.61	0.76	848	3.15	2.39	0.76	900	2.91	2.21	0.76	934
24	20	3.61	2.31	0.64	882	3.36	2.15	0.64	926	3.12	1.99	0.64	977
24	22	3.82	1.98	0.52	917	3.57	1.86	0.52	969	3.33	1.73	0.52	1003
24	24	4.03	1.61	0.40	952	3.78	1.51	0.40	995	3.57	1.43	0.40	1038
25	18	3.43	2.74	0.80	848	3.15	2.52	0.80	900	2.91	2.32	0.8	934
25	20	3.61	2.45	0.68	882	3.36	2.28	0.68	926	3.12	2.12	0.68	977
25	22	3.82	2.14	0.56	917	3.57	2.00	0.56	969	3.33	1.86	0.56	1003
25	24	4.03	1.77	0.44	952	3.78	1.66	0.44	995	3.57	1.57	0.44	1038
26	18	3.43	2.88	0.84	848	3.15	2.65	0.84	900	2.91	2.44	0.84	934
26	20	3.61	2.60	0.72	882	3.36	2.42	0.72	926	3.12	2.24	0.72	977
26	22	3.82	2.29	0.60	917	3.57	2.14	0.60	969	3.33	2.00	0.60	1003
26	24	4.03	1.93	0.48	952	3.78	1.81	0.48	995	3.57	1.71	0.48	1038
26	26	4.24	1.52	0.36	986	3.99	1.44	0.36	1029	3.75	1.35	0.36	1073
27	18	3.43	3.02	0.88	848	3.15	2.77	0.88	900	2.91	2.56	0.88	934
27	20	3.61	2.74	0.76	882	3.36	2.55	0.76	926	3.12	2.37	0.76	977
27	22	3.82	2.44	0.64	917	3.57	2.28	0.64	969	3.33	2.13	0.64	1003
27	24	4.03	2.09	0.52	952	3.78	1.97	0.52	995	3.57	1.86	0.52	1038
27	26	4.24	1.69	0.40	986	3.99	1.60	0.40	1029	3.75	1.50	0.40	1073
28	18	3.43	3.16	0.92	848	3.15	2.90	0.92	900	2.91	2.67	0.92	934
28	20	3.61	2.88	0.80	882	3.36	2.69	0.80	926	3.12	2.49	0.80	977
28	22	3.82	2.59	0.68	917	3.57	2.43	0.68	969	3.33	2.26	0.68	1003
28	24	4.03	2.25	0.56	952	3.78	2.12	0.56	995	3.57	2.00	0.56	1038
28	26	4.24	1.86	0.44	986	3.99	1.76	0.44	1029	3.75	1.65	0.44	1073
29	18	3.43	3.29	0.96	848	3.15	3.02	0.96	900	2.91	2.79	0.96	934
29	20	3.61	3.03	0.84	882	3.36	2.82	0.84	926	3.12	2.62	0.84	977
29	22	3.82	2.75	0.72	917	3.57	2.57	0.72	969	3.33	2.39	0.72	1003
29	24	4.03	2.42	0.60	952	3.78	2.27	0.60	995	3.57	2.14	0.60	1038
29	26	4.24	2.03	0.48	986	3.99	1.92	0.48	1029	3.75	1.80	0.48	1073
30	18	3.43	3.43	1.00	848	3.15	3.15	1.00	900	2.91	2.91	1.00	934
30	20	3.61	3.17	0.88	882	3.36	2.96	0.88	926	3.12	2.74	0.88	977
30	22	3.82	2.90	0.76	917	3.57	2.71	0.76	969	3.33	2.53	0.76	1003
30	24	4.03	2.58	0.64	952	3.78	2.42	0.64	995	3.57	2.28	0.64	1038
30	26	4.24	2.20	0.52	986	3.99	2.07	0.52	1029	3.75	1.95	0.52	1073
31	18	3.43	3.43	1.00	848	3.15	3.15	1.00	900	2.91	2.91	1.00	934
31	20	3.61	3.32	0.92	882	3.36	3.09	0.92	926	3.12	2.87	0.92	977
31	22	3.82	3.05	0.80	917	3.57	2.86	0.80	969	3.33	2.66	0.80	1003
31	24	4.03	2.74	0.68	952	3.78	2.57	0.68	995	3.57	2.43	0.68	1038
31	26	4.24	2.37	0.56	986	3.99	2.23	0.56	1029	3.75	2.10	0.56	1073
32	18	3.43	3.43	1.00	848	3.15	3.15	1.00	900	2.91	2.91	1.00	934
32	20	3.61	3.46	0.96	882	3.36	3.23	0.96	926	3.12	2.99	0.96	977
32	22	3.82	3.20	0.84	917	3.57	3.00	0.84	969	3.33	2.79	0.84	1003
32	24	4.03	2.90	0.72	952	3.78	2.72	0.72	995	3.57	2.57	0.72	1038
32	26	4.24	2.54	0.60	986	3.99	2.39	0.60	1029	3.75	2.25	0.60	1073

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

Heat operation at Rated frequency

MSZ-GE25VA: MUZ-GE25VA MUZ-GE25VAH

CAPACITY: 3.2 kW INPUT: 700 W

INDOOR DB (°C)	OUTDOOR WB (°C)													
	-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	2.02	455	2.43	546	2.85	616	3.26	665	3.68	707	4.06	728	4.48	742
21	1.92	490	2.30	581	2.72	644	3.10	693	3.52	728	3.90	749	4.30	777
26	1.73	525	2.14	616	2.53	679	2.94	728	3.36	763	3.74	784	4.16	805

MSZ-GE35VA: MUZ-GE35VA MUZ-GE35VAH

CAPACITY: 4.0 kW INPUT: 955 W

INDOOR DB (°C)	OUTDOOR WB (°C)													
	-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	2.52	621	3.04	745	3.56	840	4.08	907	4.60	965	5.08	993	5.60	1012
21	2.40	669	2.88	793	3.40	879	3.88	945	4.40	993	4.88	1022	5.38	1060
26	2.16	716	2.68	840	3.16	926	3.68	993	4.20	1041	4.68	1070	5.20	1098

MSZ-GE42VA: MUZ-GE42VA MUZ-GE42VAH

CAPACITY: 5.4 kW INPUT: 1460 W

INDOOR DB (°C)	OUTDOOR WB (°C)													
	-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	3.40	949	4.10	1139	4.81	1285	5.51	1387	6.21	1475	6.86	1518	7.56	1548
21	3.24	1022	3.89	1212	4.59	1343	5.24	1445	5.94	1518	6.59	1562	7.26	1621
26	2.92	1095	3.62	1285	4.27	1416	4.97	1518	5.67	1591	6.32	1635	7.02	1679

MSZ-GE50VA: MUZ-GE50VA MUZ-GE50VAH

CAPACITY: 5.8 kW INPUT: 1565 W

INDOOR DB (°C)	OUTDOOR WB (°C)													
	-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	3.65	1017	4.41	1221	5.16	1377	5.92	1487	6.67	1581	7.37	1628	8.12	1659
21	3.48	1096	4.18	1299	4.93	1440	5.63	1549	6.38	1628	7.08	1675	7.80	1737
26	3.13	1174	3.89	1377	4.58	1518	5.34	1628	6.09	1706	6.79	1753	7.54	1800

MSZ-GE60VA: MUZ-GE60VA

CAPACITY: 6.8 kW INPUT: 1770 W

INDOOR DB (°C)	OUTDOOR WB (°C)													
	-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	4.28	1151	5.17	1381	6.05	1558	6.94	1682	7.82	1788	8.64	1841	9.52	1876
21	4.08	1239	4.90	1469	5.78	1628	6.60	1752	7.48	1841	8.30	1894	9.15	1965
26	3.67	1328	4.56	1558	5.37	1717	6.26	1841	7.14	1929	7.96	1982	8.84	2036

MSZ-GE71VA: MUZ-GE71VA

CAPACITY: 8.1 kW INPUT: 2110 W

INDOOR DB (°C)	OUTDOOR WB (°C)													
	-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	5.10	1372	6.16	1646	7.21	1857	8.26	2005	9.32	2131	10.29	2194	11.34	2237
21	4.86	1477	5.83	1751	6.89	1941	7.86	2089	8.91	2194	9.88	2258	10.89	2342
26	4.37	1583	5.43	1857	6.40	2047	7.45	2194	8.51	2300	9.48	2363	10.53	2427

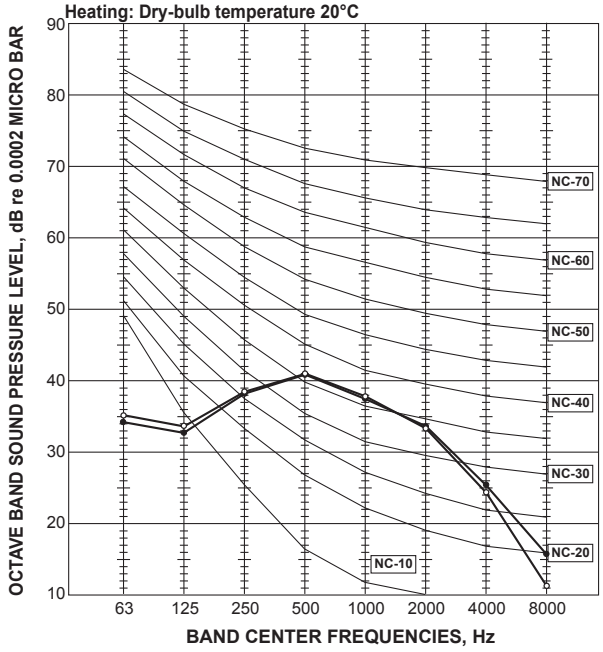
NOTE: Q: Total capacity (kW) INPUT : Total power input (W) DB: Dry-bulb temperature WB: Wet-bulb temperature

MSZ-GE22VA MSZ-GE25VA

INDOOR UNIT

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
Super High	COOLING	42	●—●
	HEATING		○—○

Test conditions,
Cooling: Dry-bulb temperature 27°C Wet-bulb temperature 19°C
Heating: Dry-bulb temperature 20°C

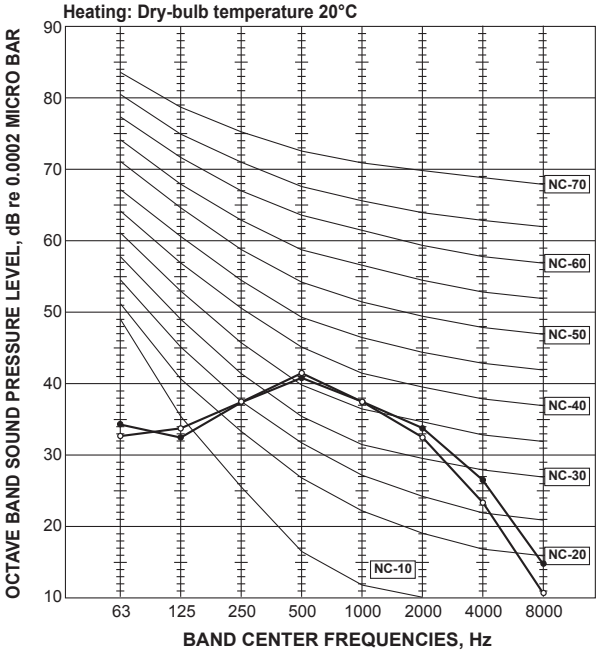


MSZ-GE35VA

INDOOR UNIT

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
Super High	COOLING	43	●—●
	HEATING	42	○—○

Test conditions,
Cooling: Dry-bulb temperature 27°C Wet-bulb temperature 19°C
Heating: Dry-bulb temperature 20°C

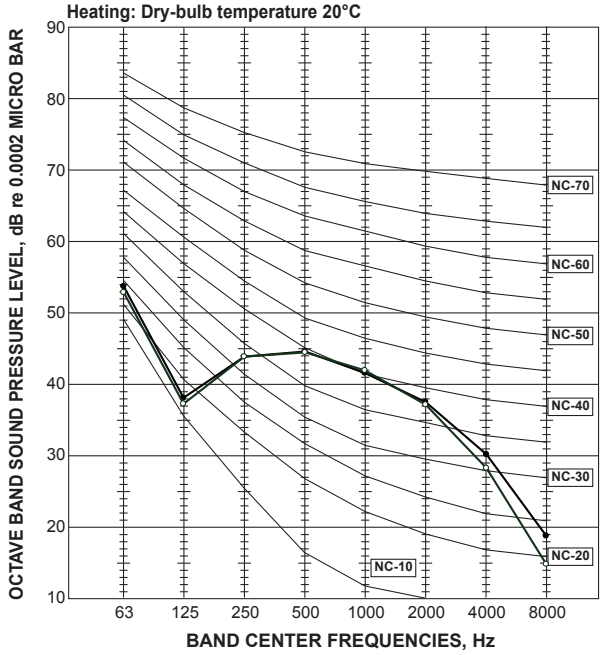


MSZ-GE42VA

INDOOR UNIT

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
Super High	COOLING	46	●—●
	HEATING		○—○

Test conditions,
Cooling: Dry-bulb temperature 27°C Wet-bulb temperature 19°C
Heating: Dry-bulb temperature 20°C

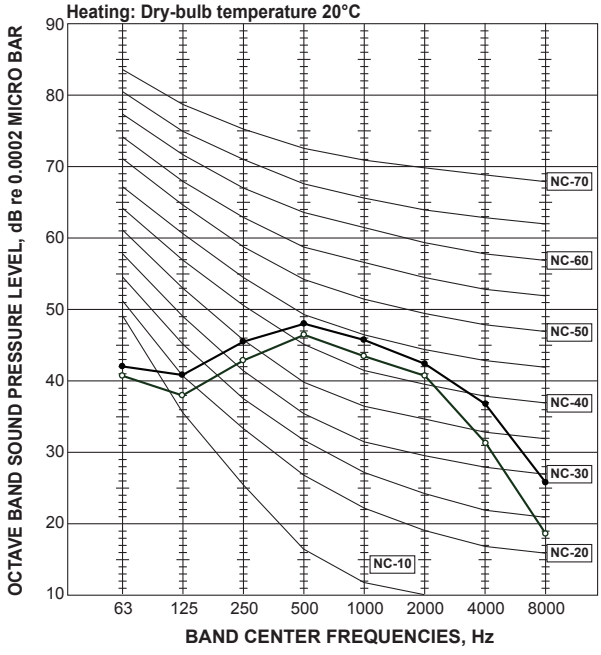


MSZ-GE50VA

INDOOR UNIT

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
Super High	COOLING	49	●—●
	HEATING	48	○—○

Test conditions,
Cooling: Dry-bulb temperature 27°C Wet-bulb temperature 19°C
Heating: Dry-bulb temperature 20°C



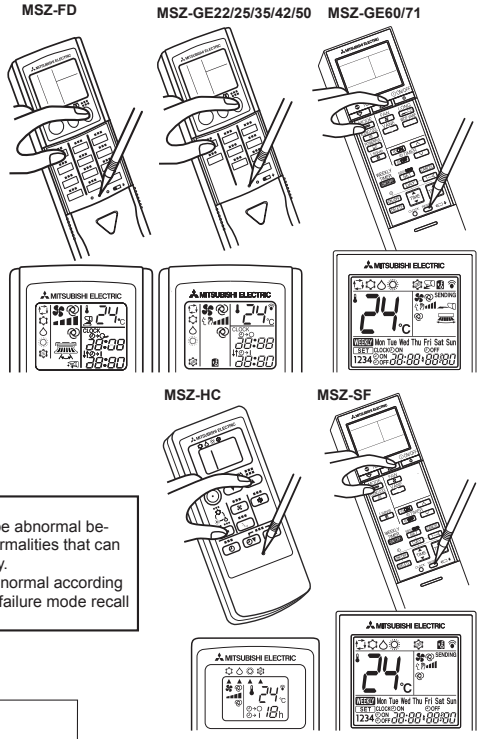
C.1.8.2 Inverter Heat Pump

MSZ-FD25VA **MSZ-GE22VA** **MSZ-GE60VA** **MSZ-HC25VA** **MSZ-SF15VA**
MSZ-FD25VAS **MSZ-GE25VA** **MSZ-GE71VA** **MSZ-HC35VA** **MSZ-SF20VA**
MSZ-FD35VA **MSZ-GE35VA** **MSZ-HC35VAB**
MSZ-FD35VAS **MSZ-GE42VA**
MSZ-FD50VA **MSZ-GE50VA**
MSZ-FD50VAS

Failure mode recall function

Outline of the function
This air conditioner can memorize the abnormal condition which has occurred once.
Even though LED indication listed on the troubleshooting check table disappears, the memorized failure details can be recalled.
This mode is very useful when the unit needs to be repaired for the abnormality which doesn't recur.

Flow chart of failure mode recall function for the indoor/outdoor unit



Operational procedure

The cause of abnormality cannot be found because the abnormality does not recur.

Setting up the failure mode recall function

Turn ON the power supply.
<Preparation of the remote controller>
① While pressing both OPERATION SELECT button and TOO COOL button (**MSZ-FD, MSZ-GE22/25/35/42/50, MSZ-HC**)/TEMP ⊕ button (**MSZ-GE60/71, MSZ-SF**) on the remote controller at the same time, press RESET button.
② First, release RESET button.
And release the other two buttons after all LCD in operation display section of the remote controller is displayed after 3 seconds.

Press OPERATE/STOP (ON/OFF) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit. ※1

※1 Regardless of normal or abnormal condition, a short beep is emitted once the signal is received.

Does POWER (**MSZ-FD**)/ the upper (**MSZ-GE**, **MSZ-HC**) /the left (**MSZ-SF**) lamp of OPERATION INDICATOR lamp on the indoor unit blink at the interval of 0.5 seconds?
Blinks: Either indoor or outdoor unit is abnormal. Beep is emitted at the same timing as the blinking of POWER (**MSZ-FD**)/the upper (**MSZ-GE**, **MSZ-HC**)/the left (**MSZ-SF**) lamp of OPERATION INDICATOR lamp. ※2

No (OFF) → Indoor unit is normal.
But the outdoor unit might be abnormal because there are some abnormalities that can not be recalled with this way.
Confirm if outdoor unit is abnormal according to the detailed outdoor unit failure mode recall function.

Yes (Blinks)

Judgment of indoor/outdoor abnormality

Before blinking, does POWER (**MSZ-FD**)/ the upper (**MSZ-GE**, **MSZ-HC**)/the left (**MSZ-SF**) lamp of OPERATION INDICATOR lamp stay ON for 3 seconds? Stays ON for 3 seconds (without beep): The outdoor unit is abnormal.

Yes → The outdoor unit is abnormal.
Check the blinking pattern, and confirm the abnormal point with the outdoor unit failure mode table.
Make sure to check at least 2 consecutive blinking cycles. ※3

No → The indoor unit is abnormal.
Check the blinking pattern, and confirm the abnormal point with the indoor unit failure mode table.
Make sure to check at least 2 consecutive blinking cycles. ※2

Releasing the failure mode recall function

Release the failure mode recall function by the following procedures.
Turn OFF the power supply and turn it ON again.
Press RESET button of the remote controller.

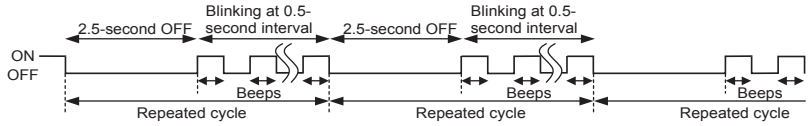
Repair the defective parts.

Deleting the memorized abnormal condition

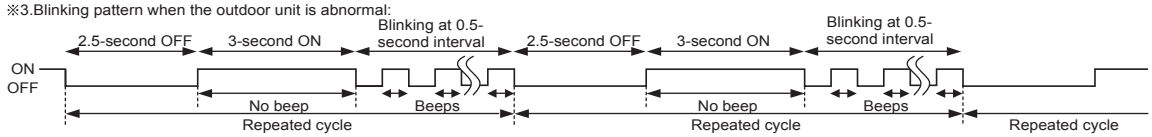
① After repairing the unit, recall the failure mode again according to "Setting up the failure mode recall function" mentioned above.
② Press OPERATE/STOP (ON/OFF) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit.
③ Press EMERGENCY OPERATION switch so that the memorized abnormal condition is deleted.
④ Release the failure mode recall function according to "Releasing the failure mode recall function" mentioned above.

NOTE: 1. Make sure to release the failure mode recall function once it is set up, otherwise the unit cannot operate properly.
2. If the abnormal condition is not deleted from the memory, the last abnormal condition is kept memorized.

※2. Blinking pattern when the indoor unit is abnormal:



※3.Blinking pattern when the outdoor unit is abnormal:



MSZ-FD25VA **MSZ-GE22VA** **MSZ-GE60VA** **MSZ-HC25VA** **MSZ-SF15VA**
MSZ-FD25VAS **MSZ-GE25VA** **MSZ-GE71VA** **MSZ-HC35VA** **MSZ-SF20VA**
MSZ-FD35VA **MSZ-GE35VA** **MSZ-HC35VAB**
MSZ-FD35VAS **MSZ-GE42VA**
MSZ-FD50VA **MSZ-GE50VA**
MSZ-FD50VAS

Indoor unit failure mode table

※ OPERATION INDICATOR lamp
POWER lamp (**MSZ-FD**)
Upper lamp (**MSZ-GE**, **MSZ-HC**)
Left lamp (**MSZ-SF**)

POWER/Upper/Left lamp of OPERATION INDICATOR lamp	Abnormal point (Failure mode)	Condition
Not lighted	Normal	—
1-time flash every 0.5-second	Room temperature thermistor	The room temperature thermistor short or open circuit is detected every 8 seconds during operation.
2-time flash 2.5-second OFF	Indoor coil thermistor	The indoor coil thermistor short or open circuit is detected every 8 seconds during operation.
3-time flash 2.5-second OFF	Serial signal	The serial signal from outdoor unit is not received for 6 minutes.
11-time flash 2.5-second OFF	Indoor fan motor	The rotational frequency feedback signal is not emitted for 12 seconds after indoor fan motor is operated.
12-time flash 2.5-second OFF	Indoor control system	It cannot properly read data in the nonvolatile memory of the indoor electronic control P.C. board.

NOTE : Blinking patterns of this mode differ from the ones of "Troubleshooting check table".

MSZ-FD25VA
MSZ-FD25VAS
MSZ-FD35VA
MSZ-FD35VAS
MSZ-FD50VA
MSZ-FD50VAS

PLASMA operation failure mode table

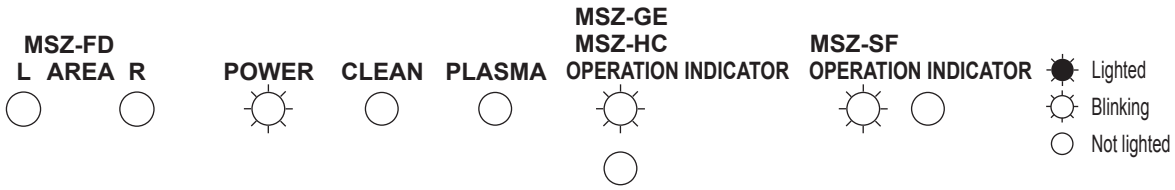
POWER lamp	Abnormal point (Failure mode)	Condition
1-time flash	PLASMA power supply control	PLASMA power supply cannot be turned OFF even if the PLASMA operation is turned OFF with the remote controller.
2-time flash	Spark discharge	The voltage between CN1 ③(+) and ②(GND) on the PLASMA POWER P.C.board falls below 1.6 V(spark discharge judgment voltage).
3-time flash	Abnormal electric discharge error 1	The voltage between CN1 ③(+) and ②(GND) on the PLASMA POWER P.C.board falls by 0.9 V below the normal voltage value (3 V).
4-time flash	Abnormal electric discharge error 2	The voltage between CN1 ③(+) and ②(GND) on the PLASMA POWER P.C.board falls significantly. (0.4 V / 0.5 ms)
5-time flash	PLASMA DEODORIZING	The voltage between CN1 ③(+) and ②(GND) on the PLASMA POWER P.C board rises above the normal voltage value (3 V).

NOTE1 : Blinking patterns of this mode differ from the ones of "Troubleshooting check table".
NOTE2 : As soon as an abnormality is detected, PLASMA operation goes OFF, therefore measuring instrument which records the voltage wave is required in order to perform the above mentioned voltage measurement.
NOTE3 : When POWER lamp flashes 1-time or 2-time, please perform PLASMA operation check.

MSZ-FD25VA **MSZ-GE22VA** **MSZ-GE60VA** **MSZ-HC25VA** **MSZ-SF15VA**
MSZ-FD25VAS **MSZ-GE25VA** **MSZ-GE71VA** **MSZ-HC35VA** **MSZ-SF20VA**
MSZ-FD35VA **MSZ-GE35VA** **MSZ-HC35VAB**
MSZ-FD35VAS **MSZ-GE42VA**
MSZ-FD50VA **MSZ-GE50VA**
MSZ-FD50VAS

Troubleshooting check table

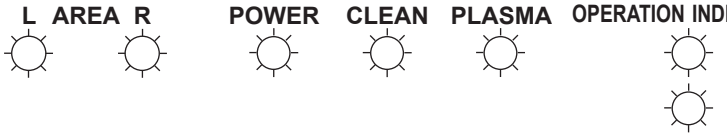
Before taking measures, make sure that the symptom reappears for accurate troubleshooting.
When the indoor unit has started operation and detected an abnormality of the following condition (the first detection after the power ON), the indoor fan motor turns OFF and OPERATION INDICATOR lamp flashes.



No.	Abnormal point	Operation indicator lamp	Symptom	Condition
1	Miswiring or serial signal	POWER/Upper/Left lamp flashes. 0.5-second ON 0.5-second OFF	Indoor unit and outdoor unit do not operate.	The serial signal from the outdoor unit is not received for 6 minutes.
2	Indoor coil thermistor Room temperature thermistor	POWER/Upper/Left lamp flashes. 2-time flash 2.5-second OFF		The indoor coil or the room temperature thermistor is short or open circuit.
3	Indoor fan motor	POWER/Upper/Left lamp flashes. 3-time flash 2.5-second OFF		The rotational frequency feedback signal is not emitted during the indoor fan operation.
4	Indoor control system	POWER/Upper/Left lamp flashes. 4-time flash 2.5-second OFF		It cannot properly read data in the nonvolatile memory of the indoor electronic control P.C. board.
5	Outdoor power system	POWER/Upper/Left lamp flashes. 5-time flash 2.5-second OFF		It consecutively occurs 3 times that the compressor stops for overcurrent protection or start-up failure protection within 1 minute after start-up.
6	Outdoor thermistors	POWER/Upper/Left lamp flashes. 6-time flash 2.5-second OFF		The outdoor thermistors short or open circuit during the compressor operation.
7	Outdoor control system	POWER/Upper/Left lamp flashes. 7-time flash 2.5-second OFF		It cannot properly read data in the nonvolatile memory of the inverter P.C. board or the outdoor electronic control P.C. board.
8	Other abnormality	POWER/Upper/Left lamp flashes. 14-time flash 2.5-second OFF		An abnormality other than above mentioned is detected.
9	Outdoor control system	**MSZ-FD**, **MSZ-GE**, **MSZ-HC, MSZ-SF** POWER/Upper/Left lamp lights up.	Outdoor unit does not operate.	It cannot properly read data in the nonvolatile memory of the inverter P.C. board or the outdoor electronic control P.C. board.

MSZ-FD25VA **MSZ-GE22VA**
MSZ-FD25VAS **MSZ-GE25VA**
MSZ-FD35VA **MSZ-GE35VA**
MSZ-FD35VAS **MSZ-GE42VA**
MSZ-FD50VA **MSZ-GE50VA**
MSZ-FD50VAS

MSZ-FD
L AREA R **POWER** **CLEAN** **PLASMA** **MSZ-GE OPERATION INDICATOR**



No.	Abnormal point	Operation indicator lamp	Symptom	Condition
1	Attachment of the horizontal vane	All lamps flash at the same time. 0.5-second ON 0.5-second OFF	Indoor unit and outdoor unit do not operate.	The electricity is not conducted to the interlock switch (Fan) of the horizontal vane.

MSZ-FD25VA **MSZ-GE22VA** **MSZ-GE60VA** **MSZ-SF15VA**
MSZ-FD25VAS **MSZ-GE25VA** **MSZ-GE71VA** **MSZ-SF20VA**
MSZ-FD35VA **MSZ-GE35VA**
MSZ-FD35VAS **MSZ-GE42VA**
MSZ-FD50VA **MSZ-GE50VA**
MSZ-FD50VAS

MSZ-FD
L AREA R **POWER** **CLEAN** **PLASMA**

No.	Abnormal point	Operation indicator lamp	Symptom	Condition
1	**MXZ type** Operation mode setting	POWER lamp is lighted. AREA lamps flash. 2.5-second OFF	Outdoor unit operates but indoor unit does not operate.	The operation mode of the each indoor unit is differently set to COOL (includes DRY) and HEAT at the same time, the operation mode of the indoor unit that has operated at first has the priority.

MSZ-GE
OPERATION INDICATOR

No.	Abnormal point	Operation indicator lamp	Symptom	Condition
1	**MXZ type** Operation mode setting	Upper lamp lights and lower lamp flashes. 2.5-second OFF	Outdoor unit operates but indoor unit does not operate.	The operation mode of the each indoor unit is differently set to COOL (includes DRY) and HEAT at the same time, the operation mode of the indoor unit that has operated at first has the priority.

MSZ-SF
OPERATION INDICATOR

No.	Abnormal point	Operation indicator lamp	Symptom	Condition
1	**MXZ type** Operation mode setting	Left lamp lights and right lamp flashes 2.5-second OFF	Outdoor unit operates but indoor unit does not operate.	The operation mode of the each indoor unit is differently set to COOL (includes DRY) and HEAT at the same time, the operation mode of the indoor unit that has operated at first has the priority

MSZ-FD25VA
MSZ-FD25VAS
MSZ-FD35VA
MSZ-FD35VAS
MSZ-FD50VA
MSZ-FD50VAS

L AREA R **POWER** **CLEAN** **PLASMA**

No.	Abnormal point	Operation indicator lamp	Symptom	Condition
1	PLASMA control	PLASMA lamp flashes. 2-time flash 2.5-second OFF	Indoor unit and outdoor unit do not operate.	PLASMA operation can not be turned OFF even if the PLASMA operation is turned OFF with remote controller.

MUZ-FD25VA **MUZ-GE25VA** **MUZ-GE42VA** **MUZ-GE60VA** **MUZ-HC25VA**
MUZ-FD25VABH **MUZ-GE25VAH** **MUZ-GE42VAH** **MUZ-GE71VA** **MUZ-HC35VA**
MUZ-FD35VA **MUZ-GE35VA** **MUZ-GE50VA** **MUZ-HC35VAB**
MUZ-FD35VABH **MUZ-GE35VAH** **MUZ-GE50VAH**
MUZ-FD50VA
MUZ-FD50VAH

Failure mode recall function

Outline of the function
This air conditioner can memorize the abnormal condition which has occurred once.
Even though LED indication listed on the troubleshooting check table disappears, the memorized failure details can be recalled.

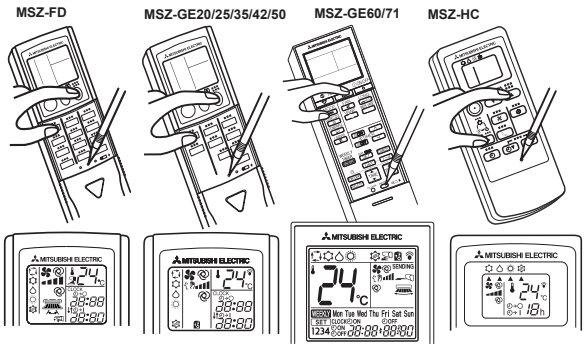
Flow chart of failure mode recall function for the indoor/outdoor unit

Operational procedure

The cause of abnormality cannot be found because the abnormality does not recur.

Setting up the failure mode recall function

Turn ON the power supply.
<Preparation of the remote controller>
① While pressing both OPERATION SELECT button and TOO COOL button (**MSZ-FD, MSZ-GE25/35/42/50**)/TEMP ⊕ button (**MSZ-GE60/71**) on the remote controller at the same time, press RESET button.
② First, release RESET button.
And release the other two buttons after all LCD in operation display section of the remote controller is displayed after 3 seconds.



Press OPERATE/STOP (ON/OFF) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit. ※1

※1. Regardless of normal or abnormal condition, a short beep is emitted once the signal is received.

Does POWER (**MSZ-FD**)/the upper (**MSZ-GE**, **MSZ-HC**) lamp of OPERATION INDICATOR lamp on the indoor unit blink at the interval of 0.5 seconds?
Blinks: Either indoor or outdoor unit is abnormal.
Beep is emitted at the same timing as the blinking of POWER (**MSZ-FD**)/the upper (**MSZ-GE**, **MSZ-HC**) lamp of OPERATION INDICATOR lamp. ※2

No (OFF) → Indoor unit is normal.
But the outdoor unit might be abnormal because there are some abnormalities that can not be recalled with this way.
Confirm if outdoor unit is abnormal according to the detailed outdoor unit failure mode recall function.

Yes (Blinks)

Judgment of indoor/outdoor abnormality

Before blinking, does POWER (**MSZ-FD**)/the upper (**MSZ-GE**, **MSZ-HC**) lamp of OPERATION INDICATOR lamp stay ON for 3 seconds?
Stays ON for 3 seconds (without beep):
The outdoor unit is abnormal.

Yes → The outdoor unit is abnormal.
Check the blinking pattern, and confirm the abnormal point with the outdoor unit failure mode table.
Make sure to check at least 2 consecutive blinking cycles. ※3

No → The indoor unit is abnormal.
Check the blinking pattern, and confirm the abnormal point with the indoor unit failure mode table.
Make sure to check at least 2 consecutive blinking cycles. ※2

Releasing the failure mode recall function

Release the failure mode recall function by the following procedures.
Turn OFF the power supply and turn it ON again.
Press RESET button of the remote controller.

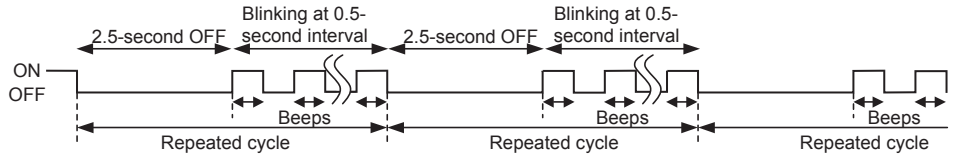
Repair the defective parts.

Deleting the memorized abnormal condition

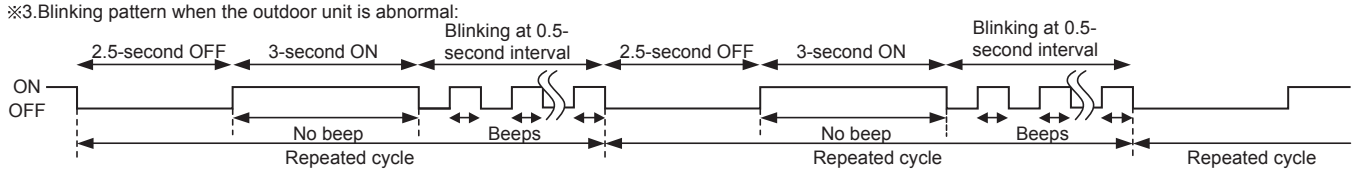
① After repairing the unit, recall the failure mode again according to "Setting up the failure mode recall function" mentioned above.
② Press OPERATE/STOP (ON/OFF) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit.
③ Press EMERGENCY OPERATION switch so that the memorized abnormal condition is deleted.
④ Release the failure mode recall function according to "Releasing the failure mode recall function" mentioned above.

NOTE: 1. Make sure to release the failure mode recall function once it is set up, otherwise the unit cannot operate properly.
2. If the abnormal condition is not deleted from the memory, the last abnormal condition is kept memorized.

※2. Blinking pattern when the indoor unit is abnormal:



※3.Blinking pattern when the outdoor unit is abnormal:



MUZ-FD25VA **MUZ-GE25VA** **MUZ-GE42VA** **MUZ-GE60VA** **MUZ-HC25VA**
MUZ-FD25VABH **MUZ-GE25VAH** **MUZ-GE42VAH** **MUZ-GE71VA** **MUZ-HC35VA**
MUZ-FD35VA **MUZ-GE35VA** **MUZ-GE50VA** **MUZ-HC35VAB**
MUZ-FD35VABH **MUZ-GE35VAH** **MUZ-GE50VAH**
MUZ-FD50VA
MUZ-FD50VAH

Flow chart of the detailed outdoor unit failure mode recall function

Operational procedure

The outdoor unit might be abnormal.
Confirm if outdoor unit is abnormal according to the following procedures.

↓

Confirm that the remote controller is in the failure mode recall function.

↓

With the remote controller headed towards the indoor unit, press TOO COOL or TOO WARM button (**MSZ-FD, MSZ-GE25/35/42/50, MSZ-HC**)/ TEMP ⊕ button (**MSZ-GE60/71**) to adjust the set temperature to 25°C. ※1

※1. Regardless of normal or abnormal condition, 2 short beeps are emitted as the signal is received.

↓

Does POWER (**MSZ-FD**)/the upper (**MSZ-GE**, **MSZ-HC**) lamp of OPERATION INDICATOR lamp on the indoor unit blink at the interval of 0.5 seconds?
Blinks: The outdoor unit is abnormal.
Beep is emitted at the same timing as the blinking of POWER (**MSZ-FD**)/the upper (**MSZ-GE, MSZ-HC**) lamp of OPERATION INDICATOR lamp.

No (OFF) → The outdoor unit is normal.

The outdoor unit is normal. → Release the failure mode recall function according to the left mentioned procedure.

Yes (Blinks)

↓

The outdoor unit is abnormal.
Check the blinking pattern, and confirm the abnormal point with the outdoor unit failure mode table.
Make sure to check at least two consecutive blinking cycles. ※2

↓

Releasing the failure mode recall function

Release the failure mode recall function by the following procedures.
Turn OFF the power supply and turn it ON again.
Press RESET button of the remote controller.

↓

Repair the defective parts.

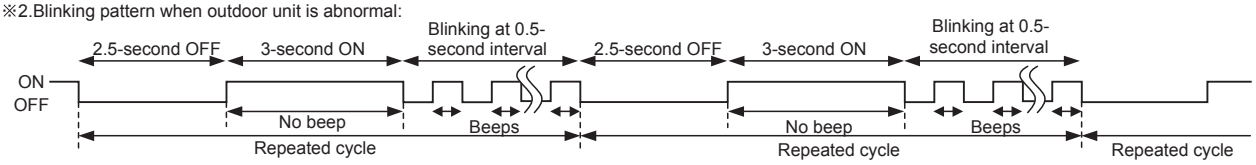
↓

Deleting the memorized abnormal condition

① After repairing the unit, recall the failure mode again according to "Setting up the failure mode recall function".
② Press OPERATE/STOP (ON/OFF) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit.
③ Press EMERGENCY OPERATION switch so that the memorized abnormal condition is deleted.
④ Release the failure mode recall function according to "Releasing the failure mode recall function" mentioned above.

NOTE: 1. Make sure to release the failure mode recall function once it is set up, otherwise the unit cannot operate properly.
2. If the abnormal condition is not deleted from the memory, the last abnormal condition is kept memorized.

※2.Blinking pattern when outdoor unit is abnormal:



MSZ-GE22VA MSZ-GE25VA MSZ-GE35VA MSZ-GE42VA MSZ-GE50VA
MUZ-GE25VA MUZ-GE35VA MUZ-GE42VA MUZ-GE50VA
MUZ-GE25VAH MUZ-GE35VAH MUZ-GE42VAH MUZ-GE50VAH

SPECIFICATIONS

Model		Power supply *1			Wire specifications *2		Pipe size (thickness *3, *4)
Indoor unit	Outdoor unit	Rated Voltage	Frequency	Breaker capacity	Power supply	Indoor/outdoor connecting wire	Gas / Liquid
MSZ-GE22VA MSZ-GE25VA MSZ-GE35VA MSZ-GE42VA	MUZ-GE25VA(H) MUZ-GE35VA(H) MUZ-GE42VA(H)	230 V	50 Hz	10 A	3-core 1.0 mm^2	4-core 1.0 mm^2	ø9.52 / 6.35 mm (0.8 mm)
MSZ-GE50VA	MUZ-GE50VA(H)			16 A	3-core 2.0 mm^2		ø12.7 / 6.35 mm (0.8 mm)

(GE25, 35, 42/GE50)

Pipe length and height difference	
Max. pipe length	20/30 m
Max. height difference	12/15 m
Max. number of bends *5, *6	10
Refrigerant adjustment A *7	30/20 g/m
Insulation thickness *8, *9	8 mm

*1 Connect to the power switch which has a gap of 3 mm or more when open to interrupt the source power phase. (When the power switch is shut off, it must interrupt all phases.)
*2 Use wires in conformity with design 60245 IEC 57.
*3 Never use pipes with thickness less than specified. The pressure resistance will be insufficient.
*4 Use a copper pipe or a copper-alloy seamless pipe.
*5 Be careful not to crush or bend the pipe during pipe bending.
*6 Refrigerant pipe bending radius must be 100 mm or more.
*7 If pipe length exceeds 7 m, additional refrigerant (R410A) charge is required. (No additional charge is required for pipe length less than 7 m.)
Additional refrigerant = A × (pipe length (m) - 7)
*8 Insulation material : Heat resisting foam plastic 0.045 specific gravity
*9 Be sure to use the insulation of specified thickness. Excessive thickness may cause incorrect installation of the indoor unit and insufficient thickness may cause dew drippage.

INSTALLATION DIAGRAM

ACCESSORIES
Check the following parts before installation.
<Indoor unit>

(1)	Installation plate	1
(2)	Installation plate fixing screw 4 × 25 mm	5
(3)	Remote controller holder	1
(4)	Fixing screw for (3) 3.5 × 16 mm (Black)	2
(5)	Battery (AAA) for (6)	2
(6)	Wireless remote controller	1
(7)	Felt tape (For left or left-rear piping)	1

<Outdoor unit>

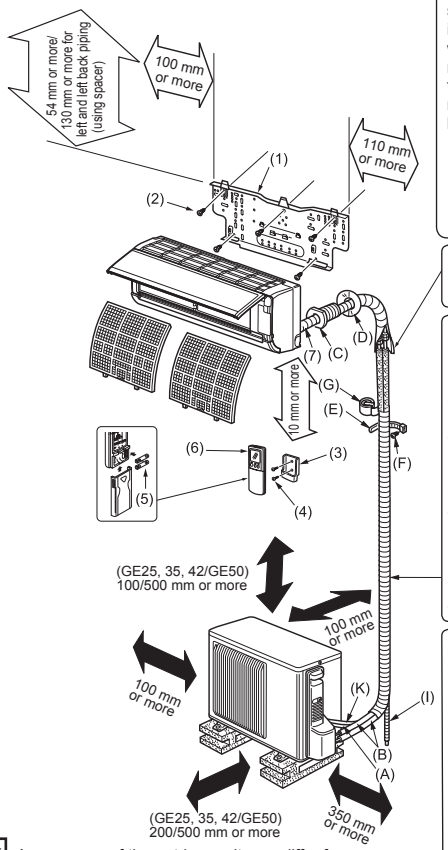
(8)	Drain socket (VA type only)	1
(9)	Drain cap ø 33 (GE50VA only)	2

PARTS TO BE PROVIDED AT YOUR SITE

(A)	Indoor/outdoor unit connecting wire*	1
(B)	Extension pipe	1
(C)	Wall hole sleeve	1
(D)	Wall hole cover	1
(E)	Pipe fixing band	2 to 5
(F)	Fixing screw for (E) 4 × 20 mm	2 to 5
(G)	Piping tape	1
(H)	Putty	1
(I)	Drain hose (or soft PVC hose, 15 mm inner diameter or hard PVC pipe VP16)	1 or 2
(J)	Refrigeration oil	1
(K)	Power supply cord*	1

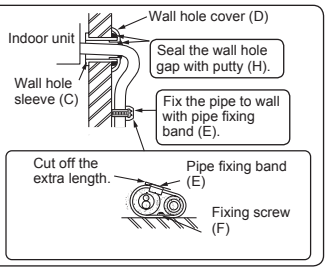
*** Note:**
Place indoor/outdoor unit connecting wire (A) and power supply cord (K) at least 1 m away from the TV antenna wire.

Units should be installed by licensed contractor according to local code requirements.



Appearance of the outdoor unit may differ from some models.

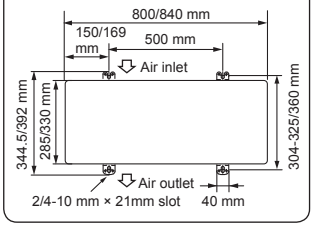
Be sure to use wall hole sleeve (C) to prevent indoor/outdoor connecting wire (A) from contacting metal parts in the wall and to prevent damage by rodents in case the wall is hollow.


Wall hole cover (D)
Indoor unit
Seal the wall hole gap with putty (H).
Wall hole sleeve (C)
Fix the pipe to wall with pipe fixing band (E).
Cut off the extra length.
Pipe fixing band (E)
Fixing screw (F)

After the leak test, apply insulating material tightly so that there is no gap.

When the piping is to be attached to a wall containing metals (tin plated) or metal netting, use a chemically treated wooden piece 20 mm or thicker between the wall and the piping or wrap 7 to 8 turns of insulation vinyl tape around the piping. To use existing piping, perform COOL operation for 30 minutes and pump down before removing the old air conditioner. Remake flare according to the dimension for new refrigerant.

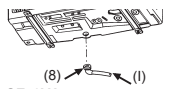
Outdoor unit installation (GE25, 35, 42/GE50)



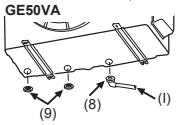
Drain piping for outdoor unit
<VA type only>
- Provide drain piping before indoor and outdoor piping connection.
- Connect drain hose (I) I.D.15 mm as shown in the illustration.
- Choose one hole for draining, and install drain socket (8). Close the remaining two holes with drain cap (9) (GE50VA only).
- Make sure to provide drain piping with a downhill grade for easy drain flow.

Note:
Install the unit horizontally.
Do not use drain socket (8) in cold regions. Drain may freeze and make the fan stop. The outdoor unit produces condensate during the heating operation. Select the installation place to ensure to prevent the outdoor unit and/or the grounds from being wet by drain water or damaged by frozen drain water.

GE25, 35, 42VA



GE50VA

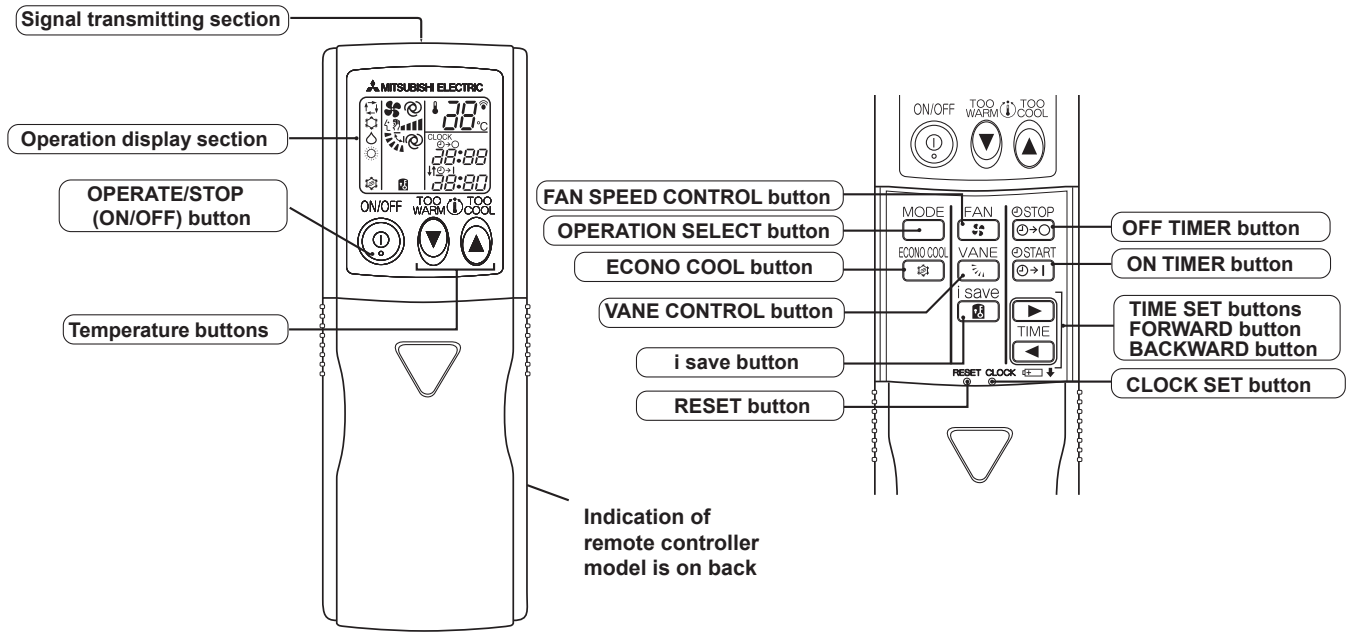


C.1.10.3 MSZ-GE•VA Series

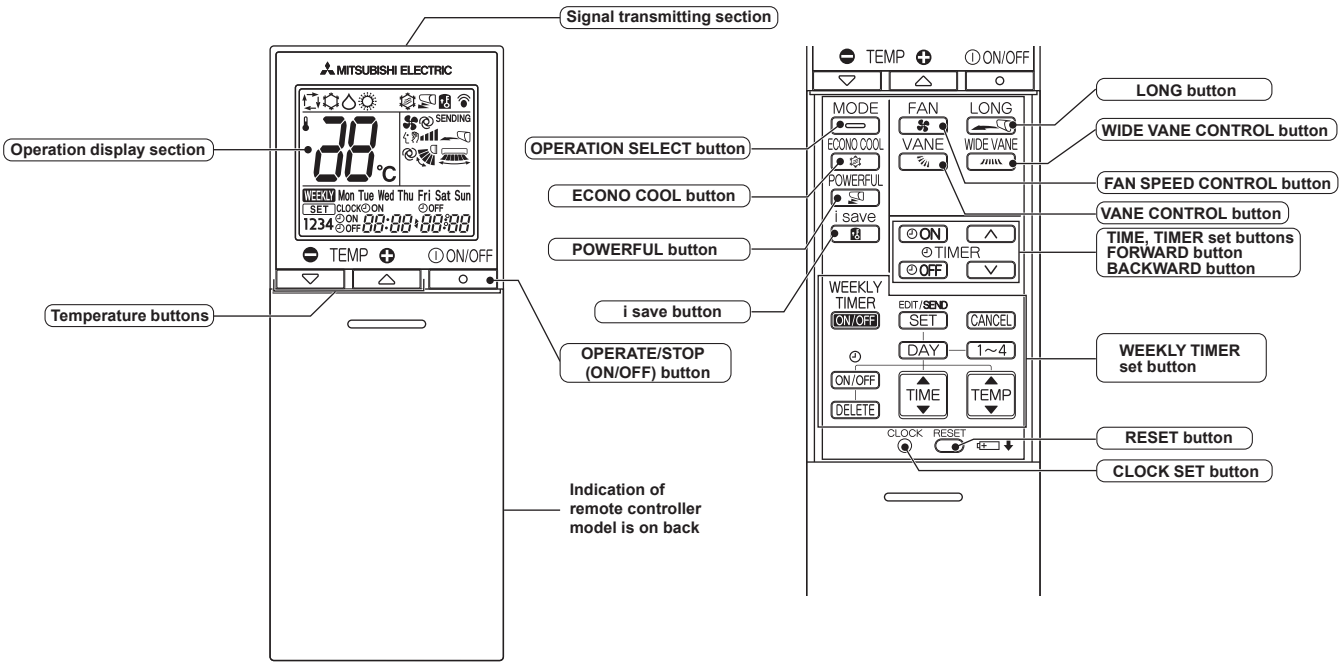
MSZ-GE22VA
MSZ-GE25VA MUZ-GE25VA MUZ-GE25VAH
MSZ-GE35VA MUZ-GE35VA MUZ-GE35VAH
MSZ-GE42VA MUZ-GE42VA MUZ-GE42VAH
MSZ-GE50VA MUZ-GE50VA MUZ-GE50VAH
MSZ-GE60VA MUZ-GE60VA
MSZ-GE71VA MUZ-GE71VA

WIRELESS REMOTE CONTROLLER

MSZ-GE22VA MSZ-GE25VA MSZ-GE35VA MSZ-GE42VA MSZ-GE50VA



MSZ-GE60VA MSZ-GE71VA



NOTE: Last setting will be stored after the unit is turned OFF with the remote controller. Indoor unit receives the signal of the remote controller with beeps.

d. AUTO CHANGE OVER ··· AUTO MODE OPERATION

Once desired temperature is set, unit operation is switched automatically between COOL and HEAT operation.

Mode selection

(1) Initial mode

When unit starts the operation with AUTO operation from OFF:

- If the room temperature is higher than the set temperature, operation starts in COOL mode.
- If the room temperature is equal to or lower than the set temperature, operation starts in HEAT mode.

(2) Mode change

COOL mode changes to HEAT mode when about 15 minutes have passed with the room temperature 1°C below the set temperature.

HEAT mode changes to COOL mode when about 15 minutes have passed with the room temperature 1°C above the set temperature.

NOTE 1

If two or more indoor units are operating in multi system, there might be a case that the indoor unit, which is operating in ▭ (AUTO), cannot change over to the other operating mode (COOL ↔ HEAT) and becomes a state of standby.

Refer to **NOTE 2 "FOR MULTI SYSTEM AIR CONDITIONER"**.

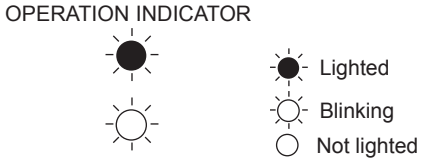
NOTE 2

FOR MULTI SYSTEM AIR CONDITIONER

OUTDOOR UNIT: MXZ series

Multi system air conditioner can connect two or more indoor units with one outdoor unit.

- When you try to operate two or more indoor units with one outdoor unit simultaneously, one for the cooling and the others for heating, the operation mode of the indoor unit that operates first is selected. Other indoor units cannot operate, and operation indicator lamp flashes as shown in the figure below. In this case, please set all the indoor units to the same operation mode.



- When indoor unit starts the operation while the defrosting of outdoor unit is being done, it takes a few minutes (max. 10 minutes) to blow out the warm air.
- In the heating operation, though indoor unit that does not operate may get warm or the sound of refrigerant flowing may be heard, they are not malfunction. The reason is that the refrigerant continuously flows into it.

e. AUTO VANE OPERATION

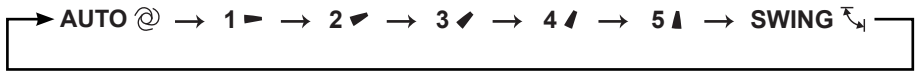
1. Horizontal vane

(1) Vane motor drive

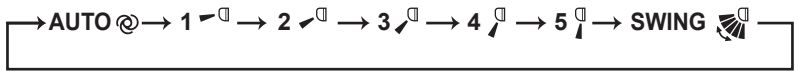
These models are equipped with a stepping motor for the horizontal vane. The rotating direction, speed, and angle of the motor are controlled by pulse signals (approximate 12 V) transmitted from indoor microprocessor.

(2) The horizontal vane angle and mode change as follows by pressing VANE CONTROL button.

MSZ-GE22VA MSZ-GE25VA MSZ-GE35VA MSZ-GE42VA MSZ-GE50VA



MSZ-GE60VA MSZ-GE71VA



(3) Positioning

To confirm the standard position, the vane moves until it touches the vane stopper. Then the vane is set to the selected angle.

Confirming of standard position is performed in the following cases:

(a) When the operation starts or finishes (including timer operation).

(b) When the test run starts.

(c) When standby mode (only during multi system operation) starts or finishes.

(4) VANE AUTO (@) mode

In VANE AUTO mode, the microprocessor automatically determines the vane angle to make the optimum room temperature distribution.

In COOL and DRY operation
Vane angle is fixed to Horizontal position.

In HEAT operation
Vane angle is fixed to Angle 5.

(4) SWING ( ) MODE
By selecting SWING mode with WIDE VANE CONTROL button, the vertical vane swings horizontally. The remote controller displays " ". Swing mode is cancelled when WIDE MODE CONTROL button is pressed once again.

f. TIMER OPERATION

1. How to set the time

(1) Check that the current time is set correctly.

NOTE: Timer operation will not work without setting the current time. Initially "0:00" blinks at the current time display of TIME MONITOR, so set the current time correctly with CLOCK SET button.

How to set the current time

(a) Press the CLOCK set button.

(b) Press the TIME SET buttons (and / and) to set the current time.

- Each time FORWARD button (/) is pressed, the set time increases by 1 minute, and each time BACKWARD button (/) is pressed, the set time decreases by 1 minute.
- Pressing those buttons longer, the set time increases/decreases by 10 minutes.

(c) Press the CLOCK set button.

(2) Press OPERATE/STOP (ON/OFF) button to start the air conditioner.

(3) Set the time of timer.

ON timer setting

(a) Press ON TIMER button(/) during operation.
(b) Set the time of the timer using TIME SET buttons (and / and). ※

OFF timer setting

(a) Press OFF TIMER button (/) during operation.
(b) Set the time of the timer using TIME SET buttons (and / and). ※

※ Each time FORWARD button (/) is pressed, the set time increases by 10 minutes: each time BACKWARD button (/) is pressed, the set time decreases by 10 minutes.

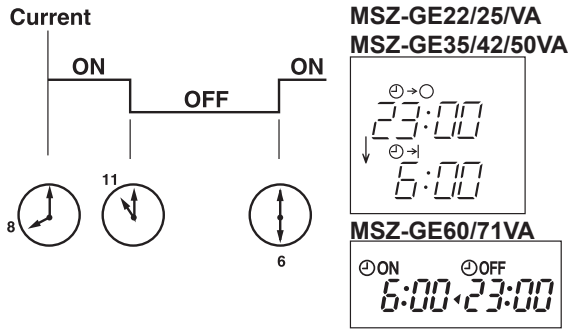
2. To release the timer

To release ON timer, press ON TIMER button (/).
To release OFF timer, press OFF TIMER button(/).
TIMER is cancelled and the display of set time disappears.

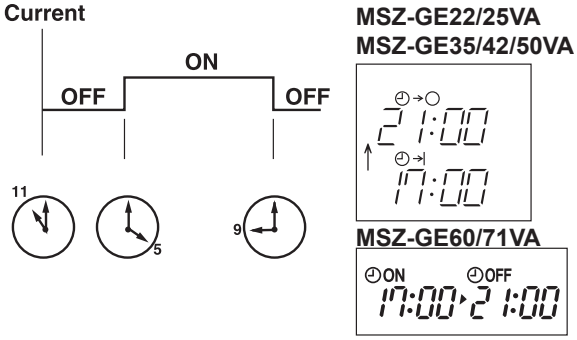
PROGRAM TIMER

- OFF timer and ON timer can be used in combination. The timer of the set time that is reached first will operate first.
- " / " and " / " display shows the order of OFF timer and ON timer operation.

(Example 1) The current time is 8:00 PM.
The unit turns off at 11:00 PM, and on at 6:00 AM.



(Example 2) The current time is 11:00 AM.
The unit turns on at 5:00 PM, and off at 9:00 PM.



NOTE: If the main power is turned OFF or a power failure occurs while ON/OFF timer is active, the timer setting is cancelled. As these models are equipped with an auto restart function, the air conditioner starts operating with timer cancelled when power is restored.

C.4.1 SPECIFICATIONS

C.4.1.1 Inverter Heat Pump

Model Name	Outdoor Unit				MXZ-2B30VA-E1	MXZ-2B40VA-E1	MXZ-2B52VA-E1	MXZ-3B54VA-E1
Power Supply				Source	Outdoor power supply			
	Out			V	230	230	230	230
				Phase	Single	Single	Single	Single
				Hz	50	50	50	50
Refrigerant					R410A	R410A	R410A	R410A
Cooling	Capacity	Rated		kW	3.0	4.0	5.2	5.4
		Max.		kW	4.0	4.5	6.0	6.8
		Min.		kW	1.1	1.1	1.1	2.9
	Power Input *1	Out	Rated	kW	0.560	0.875	1.300	1.190
	EER *2				4.97	4.32	3.83	4.30
			EEL RANK		A	A	A	A
Heating	Capacity	Rated		kW	4.0	4.5	6.4	7.0
		Max.		kW	4.4	5.0	7.0	9.0
		Min.		kW	1.0	1.0	1.0	2.6
	Power Input *1	Out	Rated	kW	0.815	0.870	1.610	1.465
	COP *2				4.65	4.91	3.86	4.56
			EEL RANK		A	A	A	A
Outdoor Unit	Dimensions		Height	mm	550	550	550	710
			Width	mm	800	800	800	840(+30)
			Depth	mm	285	285	285	330
	Weight			kg	33	35	38	57
	Air Volume	Cooling	Rated	m^3/min.	32.9	29.2	32.9	42.1
		Heating	Rated	m^3/min.	31.3	26.6	33.3	43.0
	Sound Level	Cooling	Rated	dB(A)	46	47	49	47
			Silent	dB(A)	44	44	45	45
		Heating	Rated	dB(A)	47	48	50	51
			Silent	dB(A)	46	47	48	48
	Max. Running Current *1			A	8.0	10.2	10.2	15.0
	Breaker Size			A	10	15	15	25
Ext. Piping	Diameter	Liquid		mm	6.35 x 2	6.35 x 2	6.35 x 2	6.35 x 3
		Gas		mm	9.52 x 2	9.52 ×2	9.52 x 2	9.52 x 3
	Max. length	Out-In	Total	m	20	30	30	50
			Each	m	15	20	20	25
	Max. Height	Out-In	Above Indoor	m	10	10	10	10
			Below Indoor	m	10	15	15	15
		In-In		m	10	15	15	15
Guaranteed Operation Range	Out	Cooling	Upper Limit	°C	43	43	43	43
			Lower Limit	°C	−10	−10	−10	−10
		Heating	Upper Limit	°C	24	24	24	24
			Lower Limit	°C	−15	−15	−15	−15

*1) Power Input and Operating Current (MAX) figures are for outdoor unit only.
*2) EER and COP are the figures when connected with indoor units below.
MXZ-2B30VA → MSZ-GE25VA x 2
MXZ-2B40VA → MSZ-GE25VA + MSZ-GE35VA
MXZ-2B52VA → MSZ-GE35VA x 2
MXZ-3B54VA → MSZ-GE25VA x 3
MXZ-3B68VA → MSZ-GE25VA x 3
MXZ-4B71VA → MSZ-GE25VA x 4
MXZ-4B80VA → MSZ-GE35VA x 4
MXZ-5B100VA → MSZ-GE25VA x 5
MXZ-8A140VA → MSZ-GE60VA x 3 + PAC-AK30BC

Model Name	Outdoor Unit				MXZ-3B68VA-E1	MXZ-4B71VA-E1	MXZ-4B80VA-E1	MXZ-5B100VA-E1
Power Supply				Source	Outdoor power supply			
	Out			V	230	230	230	230
				Phase	Single	Single	Single	Single
				Hz	50	50	50	50
Refrigerant					R410A	R410A	R410A	R410A
Cooling	Capacity	Rated		kW	6.8	7.1	8.0	10.0
		Max.		kW	8.4	8.8	9.2	11.0
		Min.		kW	2.9	3.7	3.7	3.9
	Power Input *1	Out	Rated	kW	1.775	1.680	1.955	2.800
	EER *2				3.69	4.02	3.86	3.44
			EEL RANK		A	A	A	A
Heating	Capacity	Rated		kW	8.6	8.6	9.4	12.0
		Max.		kW	10.6	10.7	11.6	14.0
		Min.		kW	2.6	3.4	3.4	4.1
	Power Input *1	Out	Rated	kW	2.050	1.705	1.930	2.835
	COP *2				4.06	4.79	4.65	4.07
			EEL RANK		A	A	A	A
Outdoor Unit	Dimensions		Height	mm	710	710	900	900
			Width	mm	840(+30)	840(+30)	900	900
			Depth	mm	330	330	320(+30)	320(+30)
	Weight			kg	57	58	67	68
	Air Volume	Cooling	Rated	m^3/min.	42.1	42.1	42.1	56.6
		Heating	Rated	m^3/min.	43.0	43.0	43.8	59.3
	Sound Level	Cooling	Rated	dB(A)	48	48	46	51
			Silent	dB(A)	45	45	44	46
		Heating	Rated	dB(A)	52	52	48	54
			Silent	dB(A)	48	48	46	47
	Max. Running Current *1			A	15.0	15.0	17.4	18.4
	Breaker Size			A	25	25	25	25
Ext. Piping	Diameter	Liquid		mm	6.35 x 3	6.35 x 4	6.35 x 4	6.35 x 5
		Gas		mm	9.52 x 3	9.52 x 3 + 12.7 x 1	9.52 x 3 + 12.7 x 1	9.52 x 4 + 12.7 x 1
	Max. length	Out-In	Total	m	50	60	70	80
			Each	m	25	25	25	25
	Max. Height	Out-In	Above Indoor	m	10	10	10	10
			Below Indoor	m	15	15	15	15
		In-In		m	15	15	15	15
Guaranteed Operation Range	Out	Cooling	Upper Limit	°C	43	43	43	43
			Lower Limit	°C	−10	−10	−10	−10
		Heating	Upper Limit	°C	24	24	24	24
			Lower Limit	°C	−15	−15	−15	−15

*1) Power Input and Operating Current (MAX) figures are for outdoor unit only.
*2) EER and COP are the figures when connected with indoor units below.
MXZ-2B30VA → MSZ-GE25VA x 2
MXZ-2B40VA → MSZ-GE25VA + MSZ-GE35VA
MXZ-2B52VA → MSZ-GE35VA x 2
MXZ-3B54VA → MSZ-GE25VA x 3
MXZ-3B68VA → MSZ-GE25VA x 3
MXZ-4B71VA → MSZ-GE25VA x 4
MXZ-4B80VA → MSZ-GE35VA x 4
MXZ-5B100VA → MSZ-GE25VA x 5
MXZ-8A140VA → MSZ-GE60VA x 3 + PAC-AK30BC

Model Name	Outdoor Unit				MXZ-8A140VA
Power Supply				Source	Outdoor power supply
	Out			V	230
				Phase	Single
				Hz	50
Refrigerant					R410A
Cooling	Capacity	Rated		kW	14.0
		Max.		kW	14.0
	Power Input *1	Out	Rated	kW	3.79
	EER *2				3.52
		EEL RANK			A
	Air Volume	Out	Rated	m^3/min.	100.0
Heating	Capacity	Rated		kW	16.0
		Max.		kW	16.0
	Power Input *1	Out	Rated	kW	3.90
	COP *2				3.91
		EEL RANK			A
	Air Volume	Out	Rated	m^3/min.	100.0
Outdoor Unit	Dimensions		Height	mm	1350
			Width	mm	950
			Depth	mm	330
	Weight			kg	128
	Sound Level	Cooling	Rated	dB(A)	50.0
			Silent	dB(A)	47.0
		Heating	Rated	dB(A)	52
	Max. Running Current *1			A	29.5
	Breaker Size			A	40
Ext. Piping	Diameter	Liquid		mm	9.52
		Gas		mm	15.88
	Max. Length	Out-In	Total	m	115
			Each	m	70
		Out-B.Box		m	55
		B.Box-In	Total	m	60
			Each	m	15
	Max. Height	Out-In	Above Indoor	m	30
			Below Indoor	m	20
		In-In		m	12
		B.Box-In		m	15
Guranteed Operation Range	Out	Cooling	Upper Limit	°C	+46
			Lower Limit	°C	-5
		Heating	Upper Limit	°C	+21
			Lower Limit	°C	-15

*1) Power Input and Operating Current (MAX) figures are for outdoor unit only.
*2) EER and COP are the figures when connected with indoor units below.
MXZ-2B30VA → MSZ-GE25VA x 2
MXZ-2B40VA → MSZ-GE25VA + MSZ-GE35VA
MXZ-2B52VA → MSZ-GE35VA x 2
MXZ-3B54VA → MSZ-GE25VA x 3
MXZ-3B68VA → MSZ-GE25VA x 3
MXZ-4B71VA → MSZ-GE25VA x 4
MXZ-4B80VA → MSZ-GE35VA x 4
MXZ-5B100VA → MSZ-GE25VA x 5
MXZ-8A140VA → MSZ-GE60VA x 3 + PAC-AK30BC

MXZ-4B71VA Cooling capacity

Indoor units combination	Cooling capacity (kW)					Outdoor unit power consumption(kW)	Current (A)	Power factor(%)
	Unit A	Unit B	Unit C	Unit D	Total			
15	1.50				1.50 (1.4 - 3.0)	0.490 (0.450 - 1.020)	2.15	99
20	2.00				2.00 (1.4 - 3.0)	0.520 (0.450 - 1.020)	2.28	99
22	2.20				2.20 (1.4 - 3.0)	0.510 (0.420 - 0.740)	2.24	99
25	2.50				2.50 (1.4 - 3.3)	0.580 (0.420 - 0.830)	2.55	99
35	3.50				3.50 (1.5 - 4.3)	0.800 (0.430 - 1.180)	3.51	99
42	4.20				4.20 (1.6 - 5.0)	1.060 (0.450 - 1.420)	4.66	99
50	5.00				5.00 (1.6 - 5.6)	1.400 (0.480 - 1.660)	6.15	99
60	6.00				6.00 (1.6 - 6.6)	1.700 (0.480 - 2.250)	7.47	99
15+15	1.50	1.50			3.00 (2.0 - 5.4)	0.790 (0.700 - 1.800)	3.47	99
15+20	1.50	2.00			3.50 (2.0 - 5.4)	0.850 (0.700 - 1.790)	3.73	99
15+22	1.50	2.20			3.70 (2.0 - 5.4)	0.980 (0.620 - 1.620)	4.30	99
15+25	1.50	2.50			4.00 (2.0 - 5.4)	1.130 (0.780 - 1.970)	4.96	99
15+35	1.50	3.50			5.00 (2.0 - 6.0)	1.110 (0.620 - 1.920)	4.87	99
15+42	1.50	4.20			5.70 (2.0 - 6.4)	1.370 (0.620 - 2.130)	6.02	99
15+50	1.50	5.00			6.50 (2.0 - 6.8)	1.670 (0.630 - 2.350)	7.33	99
15+60	1.36	5.44			6.80 (2.0 - 7.1)	1.850 (0.640 - 2.490)	8.12	99
20+20	2.00	2.00			4.00 (2.0 - 5.4)	1.100 (0.700 - 1.800)	4.83	99
20+22	2.00	2.20			4.20 (2.0 - 5.4)	1.030 (0.620 - 1.620)	4.52	99
20+25	2.00	2.50			4.50 (2.0 - 5.4)	0.960 (0.620 - 1.620)	4.22	99
20+35	2.00	3.50			5.50 (2.0 - 6.3)	1.300 (0.620 - 2.070)	5.71	99
20+42	2.00	4.20			6.20 (2.0 - 6.7)	1.550 (0.620 - 2.270)	6.81	99
20+50	1.94	4.86			6.80 (2.0 - 7.1)	1.850 (0.630 - 2.500)	8.12	99
20+60	1.70	5.10			6.80 (2.0 - 7.1)	1.850 (0.640 - 2.490)	8.12	99
22+22	2.20	2.20			4.40 (2.0 - 5.4)	0.900 (0.540 - 1.450)	3.95	99
22+25	2.20	2.50			4.70 (2.0 - 5.7)	0.990 (0.540 - 1.600)	4.35	99
22+35	2.20	3.50			5.70 (2.0 - 6.4)	1.340 (0.540 - 1.960)	5.88	99
22+42	2.20	4.20			6.40 (2.0 - 6.8)	1.600 (0.540 - 2.160)	7.03	99
22+50	2.08	4.72			6.80 (2.0 - 7.1)	1.820 (0.550 - 2.330)	7.99	99
22+60	1.82	4.98			6.80 (2.0 - 7.1)	1.820 (0.560 - 2.320)	7.99	99
25+25	2.50	2.50			5.00 (2.0 - 6.0)	1.080 (0.540 - 1.750)	4.74	99
25+35	2.50	3.50			6.00 (2.0 - 6.6)	1.450 (0.540 - 2.050)	6.37	99
25+42	2.50	4.20			6.70 (2.0 - 6.9)	1.710 (0.540 - 2.250)	7.51	99
25+50	2.27	4.53			6.80 (2.0 - 7.1)	1.820 (0.550 - 2.330)	7.99	99
25+60	2.00	4.80			6.80 (2.0 - 7.1)	1.810 (0.560 - 2.320)	7.95	99
35+35	3.40	3.40			6.80 (2.0 - 7.1)	1.820 (0.540 - 2.340)	7.99	99
35+42	3.09	3.71			6.80 (2.0 - 7.1)	1.820 (0.540 - 2.340)	7.99	99

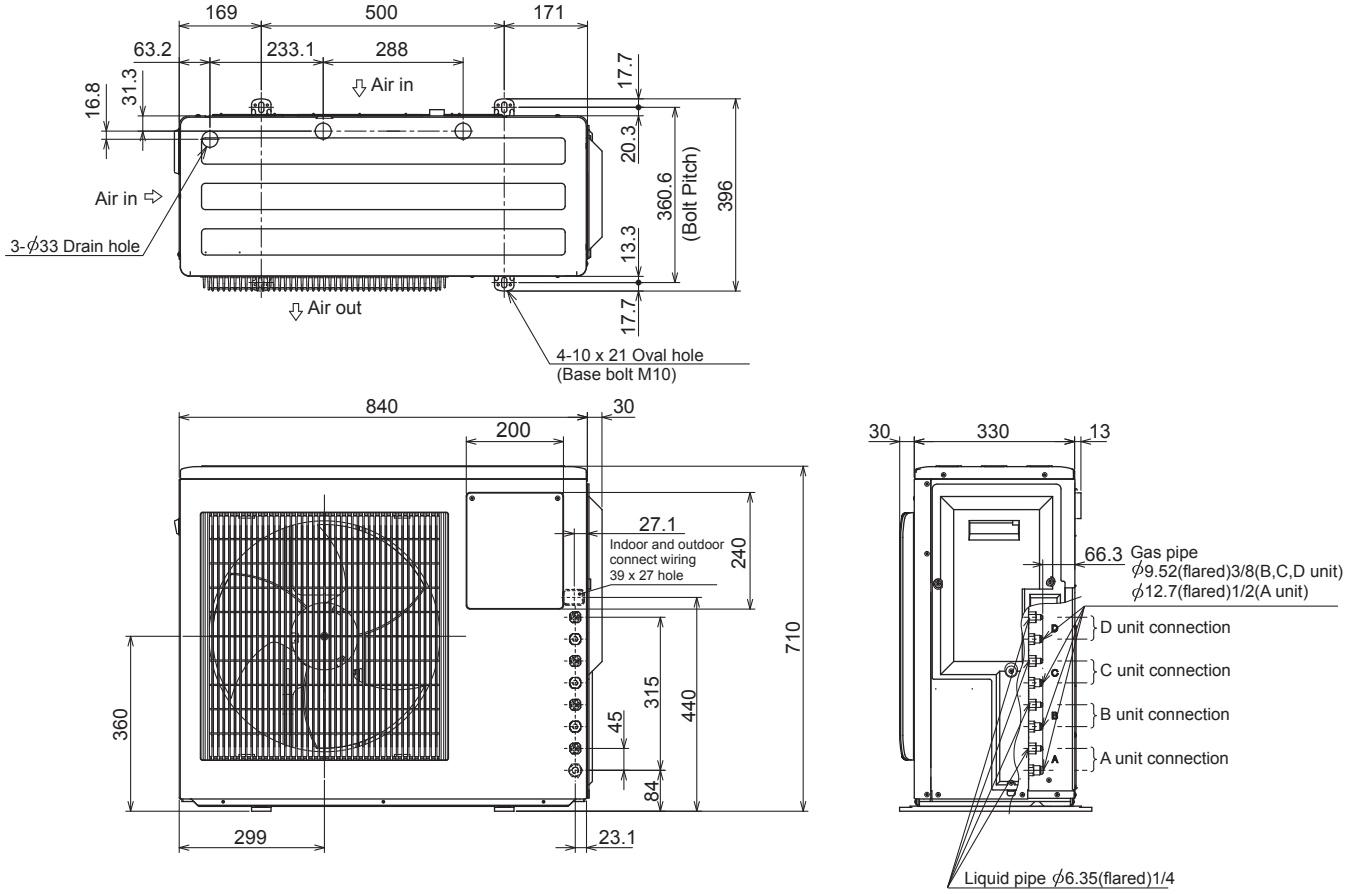
MXZ-4B71VA Heating capacity

Indoor units combination	Heating capacity (kW)					Outdoor unit power consumption(kW)	Current (A)	Power factor(%)
	Unit A	Unit B	Unit C	Unit D	Total			
15	1.70				1.70 (1.2 - 3.0)	0.500 (0.400 - 0.950)	2.20	99
20	2.20				2.20 (1.2 - 3.9)	0.610 (0.390 - 1.330)	2.68	99
22	3.30				3.30 (1.2 - 4.2)	0.760 (0.380 - 1.090)	3.34	99
25	3.60				3.60 (1.2 - 4.5)	0.860 (0.380 - 1.190)	3.78	99
35	4.00				4.00 (1.2 - 4.8)	1.000 (0.380 - 1.300)	4.39	99
42	5.40				5.40 (1.3 - 6.5)	1.460 (0.370 - 1.800)	6.41	99
50	7.20				7.20 (1.4 - 8.2)	1.880 (0.370 - 2.300)	8.26	99
60	7.90				7.90 (1.4 - 8.6)	2.120 (0.360 - 2.410)	9.31	99
15+15	1.70	1.70			3.40 (1.8 - 5.0)	0.850 (0.670 - 1.310)	3.73	99
15+20	1.67	2.23			3.90 (1.8 - 5.8)	1.020 (0.680 - 1.630)	4.48	99
15+22	1.66	2.44			4.10 (1.8 - 6.1)	1.080 (0.550 - 1.760)	4.74	99
15+25	1.65	2.75			4.40 (1.8 - 6.6)	1.180 (0.800 - 1.950)	5.18	99
15+35	2.16	5.04			7.20 (1.8 - 9.0)	1.680 (0.550 - 2.170)	7.38	99
15+42	2.03	5.67			7.70 (1.8 - 9.0)	1.780 (0.550 - 2.170)	7.82	99
15+50	1.92	6.38			8.30 (1.8 - 9.0)	1.910 (0.550 - 2.170)	8.39	99
15+60	1.72	6.88			8.60 (1.8 - 9.0)	2.050 (0.550 - 2.150)	9.00	99
20+20	2.20	2.20			4.40 (1.8 - 6.6)	1.180 (0.660 - 1.950)	5.18	99
20+22	2.62	2.88			5.50 (1.8 - 6.9)	1.330 (0.540 - 1.830)	5.84	99
20+25	2.98	3.72			6.70 (1.8 - 7.5)	1.510 (0.540 - 1.790)	6.63	99
20+35	2.76	4.84			7.60 (1.8 - 9.0)	1.770 (0.540 - 2.170)	7.77	99
20+42	2.58	5.42			8.00 (1.8 - 9.0)	1.870 (0.540 - 2.170)	8.21	99
20+50	2.46	6.14			8.60 (1.8 - 9.0)	2.000 (0.540 - 2.170)	8.78	99
20+60	2.15	6.45			8.60 (1.8 - 9.0)	2.070 (0.540 - 2.130)	9.09	99
22+22	3.30	3.30			6.60 (1.8 - 7.2)	1.470 (0.410 - 1.710)	6.46	99
22+25	3.23	3.67			6.90 (1.8 - 8.1)	1.580 (0.410 - 1.940)	6.94	99
22+35	2.97	4.73			7.70 (1.8 - 9.0)	1.800 (0.410 - 2.170)	7.91	99
22+42	2.82	5.38			8.20 (1.8 - 9.0)	1.910 (0.410 - 2.170)	8.39	99
22+50	2.63	5.97			8.60 (1.8 - 9.0)	2.010 (0.410 - 2.160)	8.83	99
22+60	2.31	6.29			8.60 (1.8 - 9.0)	2.080 (0.410 - 2.120)	9.13	99
25+25	3.60	3.60			7.20 (1.8 - 9.0)	1.680 (0.410 - 2.170)	7.38	99
25+35	3.29	4.61			7.90 (1.8 - 9.0)	1.860 (0.410 - 2.170)	8.17	99
25+42	3.13	5.27			8.40 (1.8 - 9.0)	1.960 (0.410 - 2.170)	8.61	99
25+50	2.87	5.73			8.60 (1.8 - 9.0)	2.020 (0.410 - 2.150)	8.87	99
25+60	2.53	6.07			8.60 (1.8 - 9.0)	2.070 (0.400 - 2.110)	9.09	99
35+35	4.30	4.30			8.60 (1.8 - 9.0)	2.030 (0.410 - 2.170)	8.92	99
35+42	3.91	4.69			8.60 (1.8 - 9.0)	2.040 (0.410 - 2.140)	8.96	99

MXZ-4B71VA

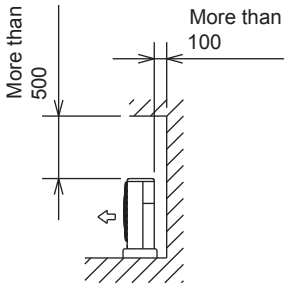
OUTDOOR UNIT

Unit: mm

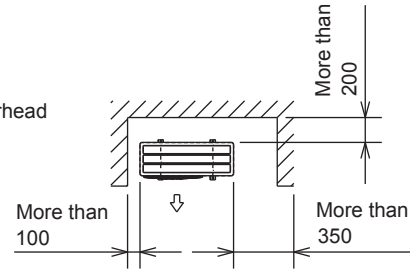


1.Installation space

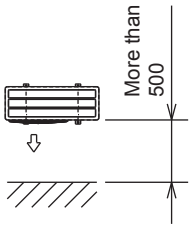
Note : Leave front and both sides free of obstruction.



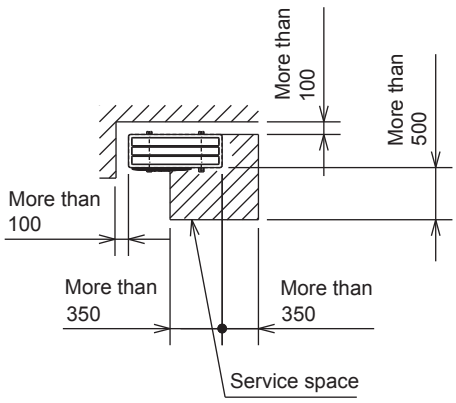
Note : Leave front and overhead free of obstruction.



Note : Leave rear, overhead and both sides free of obstruction.

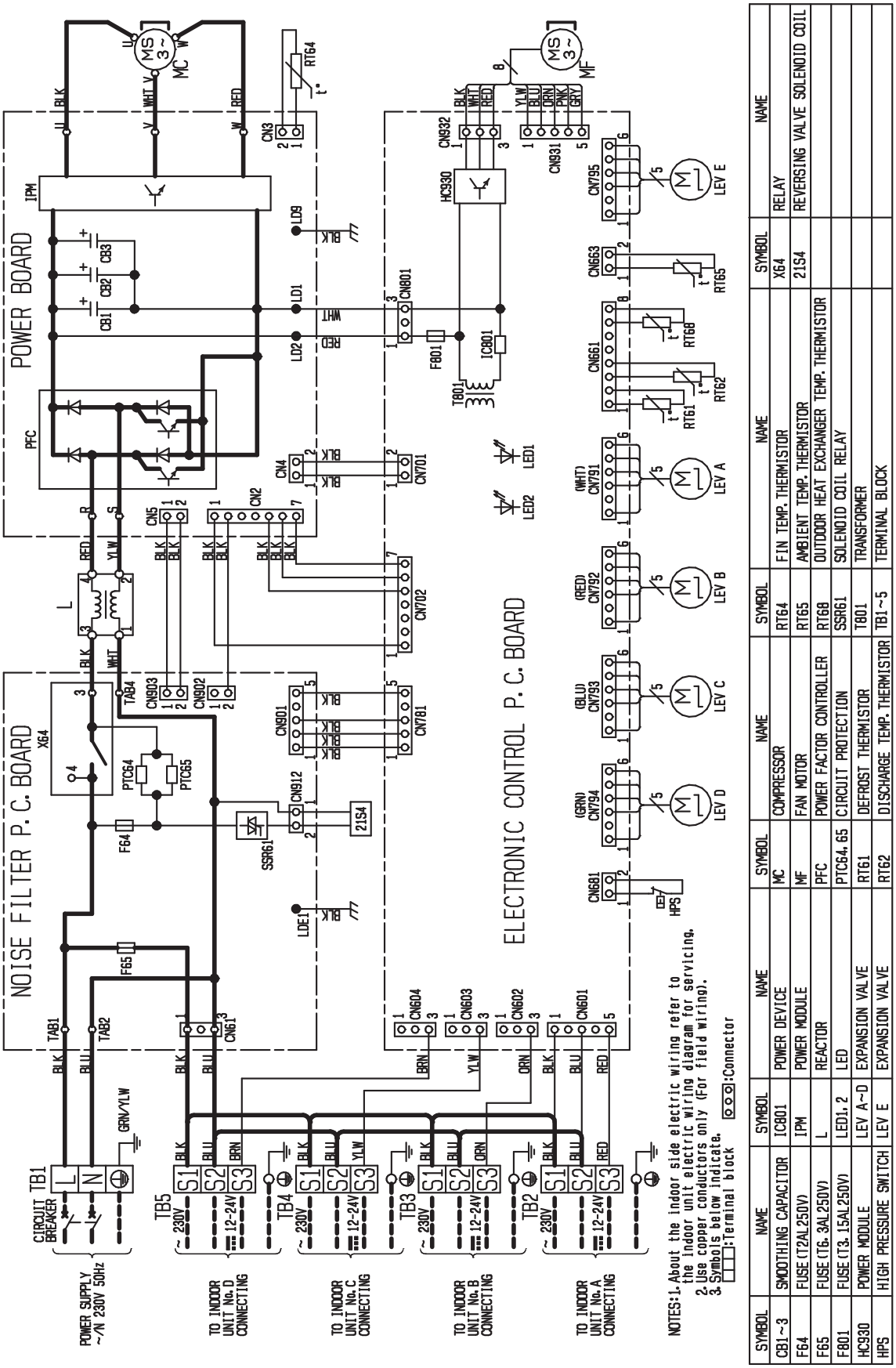


2.Service space



MXZ-4B71VA

OUTDOOR UNIT

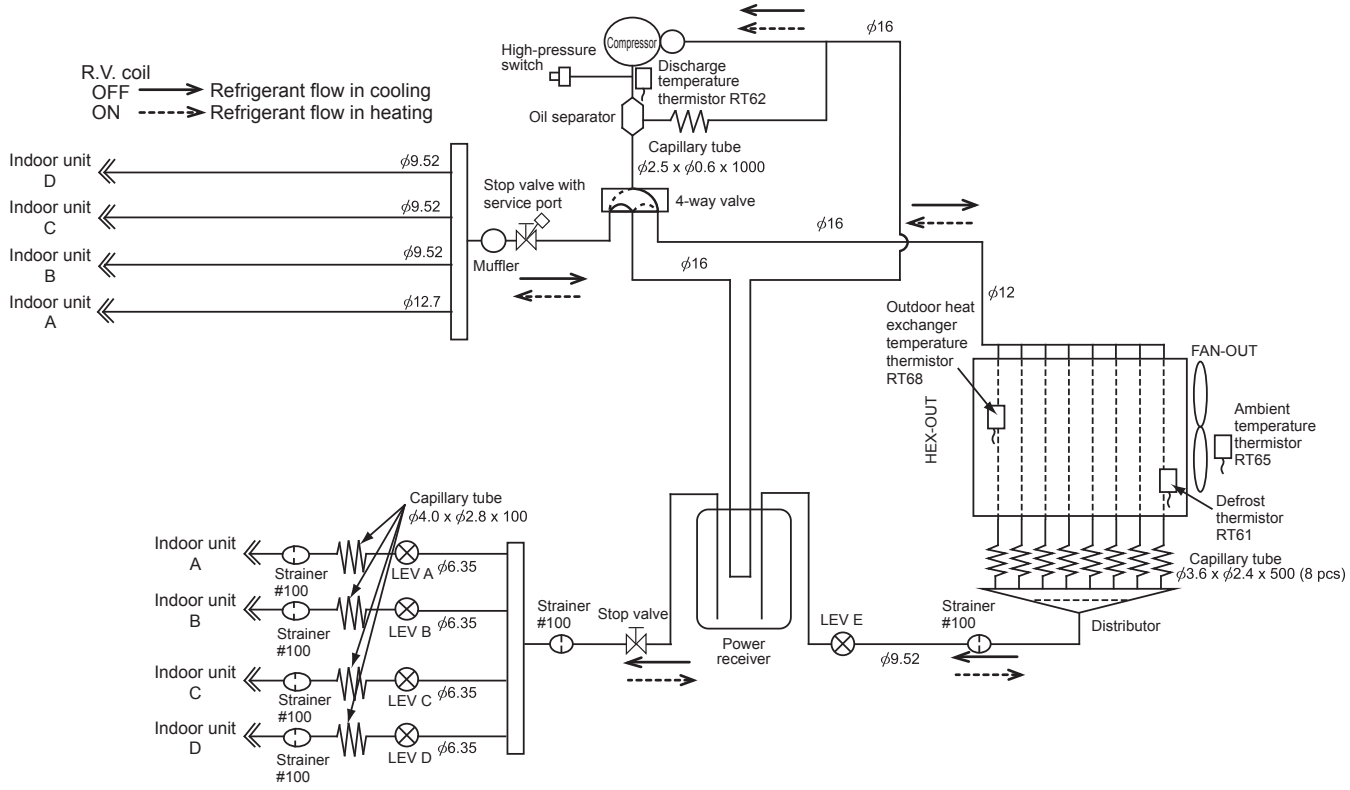


SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CB1~3	SMOOTHING CAPACITOR	IC801	POWER DEVICE	MC	COMPRESSOR	RT64	FIN TEMP. THERMISTOR
F64	FUSE(T2AL250V)	IPM	POWER MODULE	MF	FAN MOTOR	RT65	AMBIENT TEMP. THERMISTOR
F65	FUSE(T6.3AL250V)	L	REACTOR	PFC	POWER FACTOR CONTROLLER	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
F801	FUSE(T3.15AL250V)	LED1.2	LED	PTC64.65	CIRCUIT PROTECTION	SSR61	SOLENOID COIL RELAY
HC930	POWER MODULE	LEV A~D	EXPANSION VALVE	RT61	DEFROST THERMISTOR	T801	TRANSFORMER
HPS	HIGH PRESSURE SWITCH	LEV E	EXPANSION VALVE	RT62	DISCHARGE TEMP. THERMISTOR	TB1~5	TERMINAL BLOCK

SYMBOL	NAME
X64	RELAY
21S4	REVERSING VALVE SOLENOID COIL

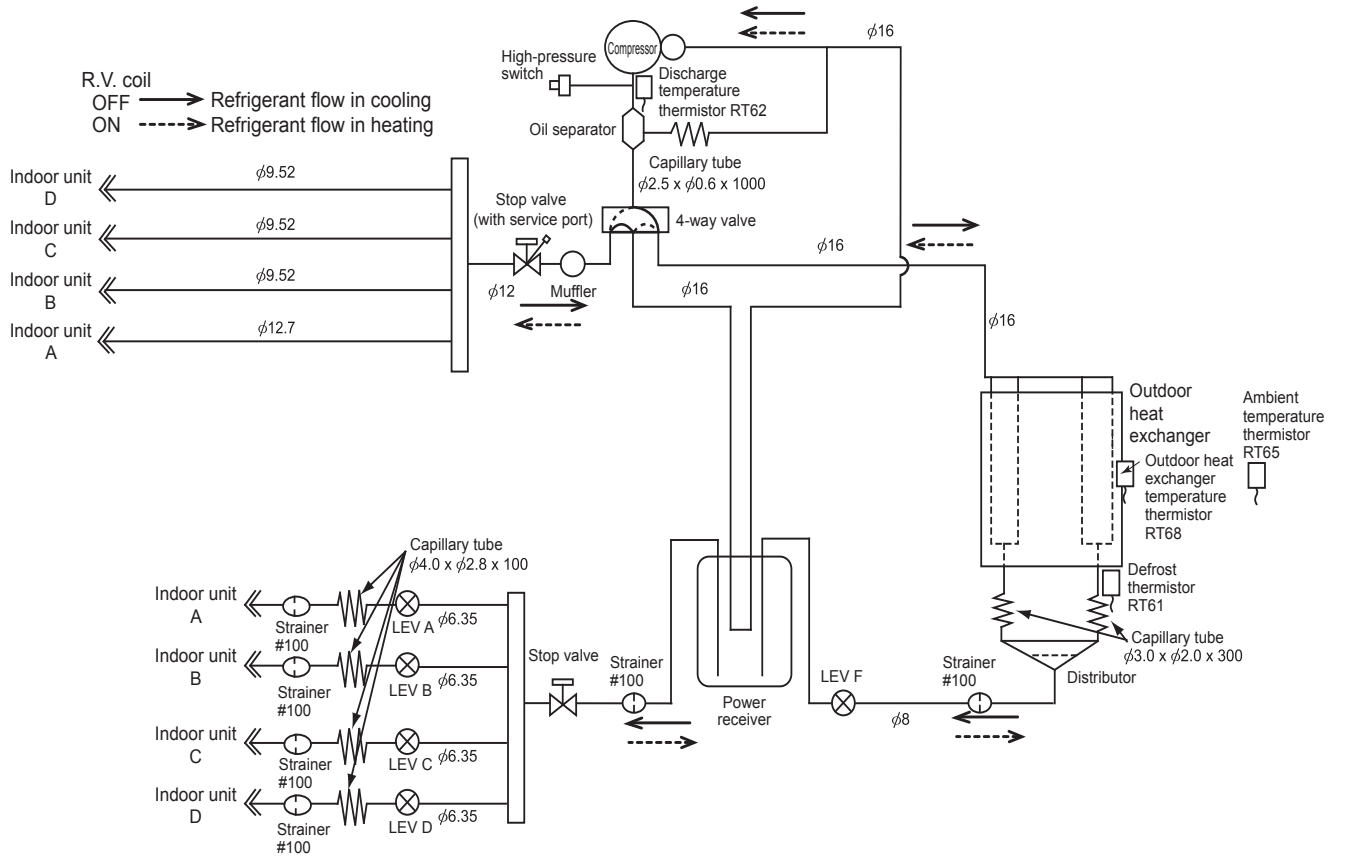
MXZ-4B71VA

Unit: mm



MXZ-4B80VA

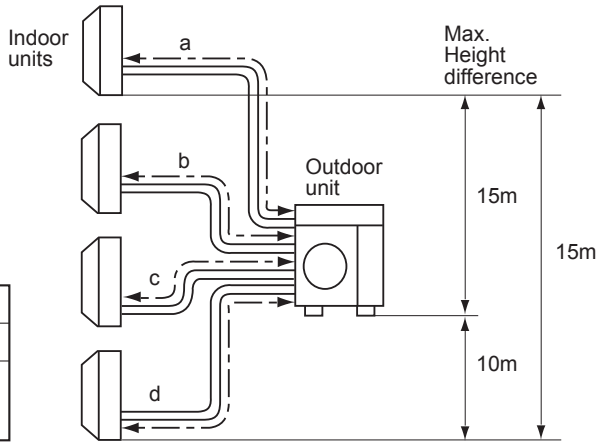
Unit: mm



MXZ-4B71VA

MAX REFRIGERANT PIPING LENGTH

Piping length each indoor unit (a, b, c, d)	25m
Total piping length (a+b+c+d)	60m
Bending point for each unit	25
Total bending point	60



✻It is irrelevant which unit is higher.

ADDITIONAL REFRIGERANT CHARGE

Outdoor unit precharged (g)	Refrigerant piping length (one way, 4 unit total)		
	40m	50m	60m
2,700	0	200	400

Calculation : Xg = 20 g/m x (Refrigerant piping length (m) - 40)

- Refrigerant pipe diameter is different according to indoor unit to be connected. When using extension pipes, refer to the tables below.
- When diameter of refrigerant pipe is different from that of outdoor unit union, use optional Different-diameter pipe. For further information on Different-diameter pipe.

UNIT: mm (inch)

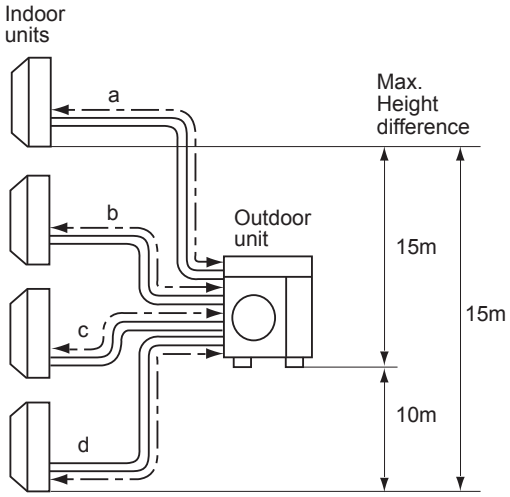
Indoor unit class	Indoor unit Pipe diameter		Extension pipe diameter	
15/20/22/25/35/42	Liquid	6.35(1/4)	Liquid	6.35(1/4)
	Gas	9.52(3/8)	Gas	9.52(3/8)
50	Liquid	6.35(1/4)	Liquid	6.35(1/4)
	Gas	12.7(1/2)	Gas	12.7(1/2)
60	Liquid	6.35(1/4)	Liquid	6.35(1/4)
	Gas	15.88(5/8)	Gas	15.88(5/8)

Outdoor unit union diameter For		
Indoor unit A	Liquid	6.35(1/4)
	Gas	12.7(1/2)
Indoor unit B	Liquid	6.35(1/4)
	Gas	9.52(3/8)
Indoor unit C	Liquid	6.35(1/4)
	Gas	9.52(3/8)
Indoor unit D	Liquid	6.35(1/4)
	Gas	9.52(3/8)

MXZ-4B80VA

MAX REFRIGERANT PIPING LENGTH

Piping length each indoor unit (a, b, c, d)	25m
Total piping length (a+b+c+d)	70m
Bending point for each unit	25
Total bending point	70



✻It is irrelevant which unit is higher.

ADDITIONAL REFRIGERANT CHARGE

Outdoor unit precharged (g)	Refrigerant piping length (one way, 4 unit total)			
	40m	50m	60m	70m
3,500	0	200	400	600

Calculation : Xg = 20 g/m x (Refrigerant piping length (m) - 40)

- Refrigerant pipe diameter is different according to indoor unit to be connected. When using extension pipes, refer to the tables below.
- When diameter of refrigerant pipe is different from that of outdoor unit union, use optional Different-diameter pipe. For further information on Different-diameter pipe.

UNIT: mm (inch)

Indoor unit class	Indoor unit Pipe diameter		Extension pipe diameter	
15/20/22/ 25/35/42	Liquid	6.35(1/4)	Liquid	6.35(1/4)
	Gas	9.52(3/8)	Gas	9.52(3/8)
50	Liquid	6.35(1/4)	Liquid	6.35(1/4)
	Gas	12.7(1/2)	Gas	12.7(1/2)
60	Liquid	6.35(1/4)	Liquid	6.35(1/4)
	Gas	15.88(5/8)	Gas	15.88(5/8)
71	Liquid	9.52(3/8)	Liquid	9.52(3/8)
	Gas	15.88(5/8)	Gas	15.88(5/8)

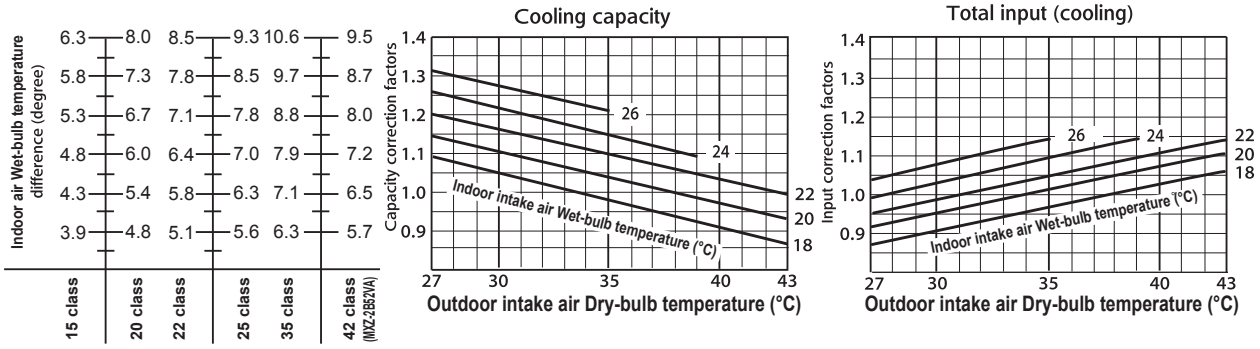
Outdoor unit union diameter For		
Indoor unit A	Liquid	6.35(1/4)
	Gas	12.7(1/2)
Indoor unit B	Liquid	6.35(1/4)
	Gas	9.52(3/8)
Indoor unit C	Liquid	6.35(1/4)
	Gas	9.52(3/8)
Indoor unit D	Liquid	6.35(1/4)
	Gas	9.52(3/8)

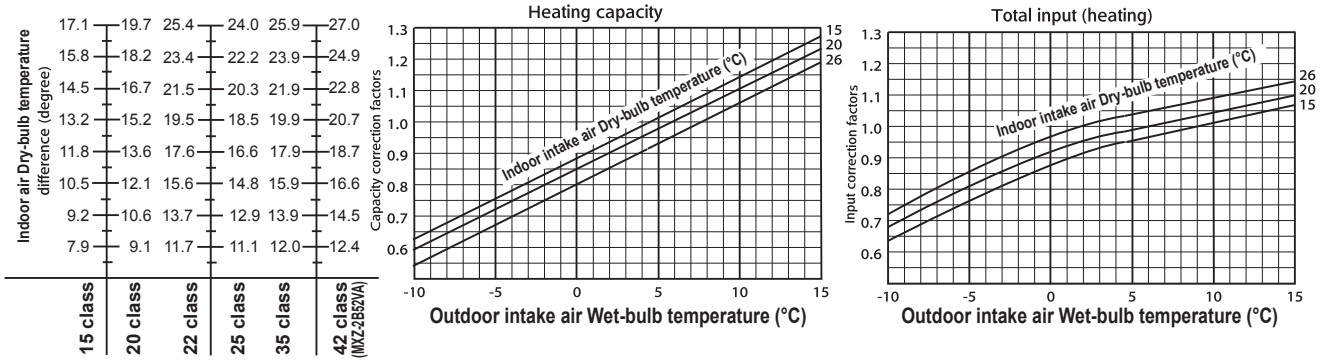
C.4.5 PERFORMANCE CURVES

C.4.5.1 Inverter Heat Pump

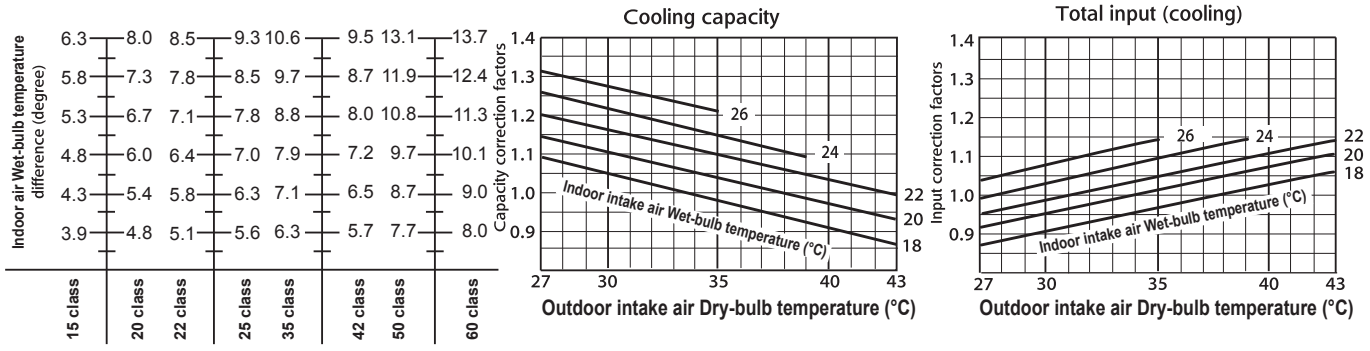
Capacity and the input curves

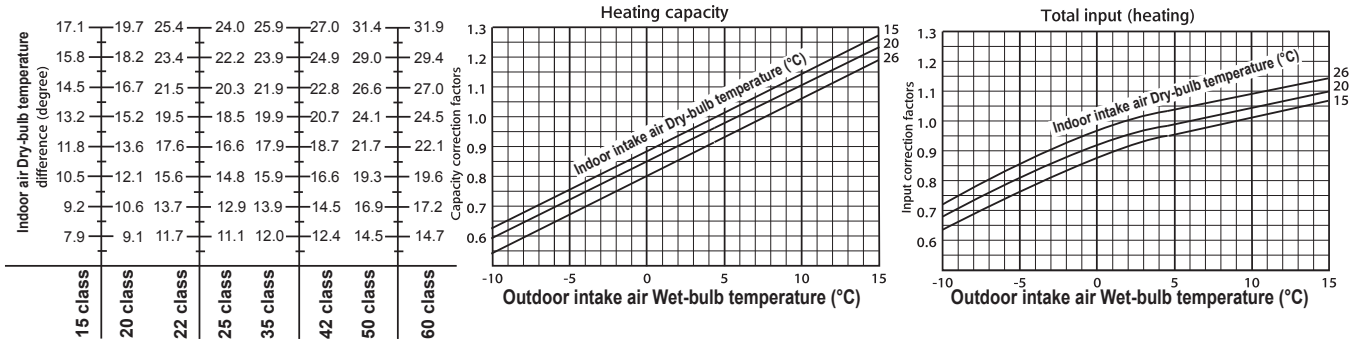
MXZ-2B30VA
MXZ-2B40VA
MXZ-2B52VA


Indoor air Wet-bulb temperature difference (degree)
6.3 8.0 8.5 9.3 10.6 9.5
5.8 7.3 7.8 8.5 9.7 8.7
5.3 6.7 7.1 7.8 8.8 8.0
4.8 6.0 6.4 7.0 7.9 7.2
4.3 5.4 5.8 6.3 7.1 6.5
3.9 4.8 5.1 5.6 6.3 5.7
15 class
20 class
22 class
25 class
35 class
42 class (MXZ-2B52VA)
Cooling capacity
Capacity correction factors
Indoor intake air Wet-bulb temperature (°C)
Outdoor intake air Dry-bulb temperature (°C)
Total input (cooling)
Input correction factors
Indoor intake air Wet-bulb temperature (°C)
Outdoor intake air Dry-bulb temperature (°C)


Indoor air Dry-bulb temperature difference (degree)
17.1 19.7 25.4 24.0 25.9 27.0
15.8 18.2 23.4 22.2 23.9 24.9
14.5 16.7 21.5 20.3 21.9 22.8
13.2 15.2 19.5 18.5 19.9 20.7
11.8 13.6 17.6 16.6 17.9 18.7
10.5 12.1 15.6 14.8 15.9 16.6
9.2 10.6 13.7 12.9 13.9 14.5
7.9 9.1 11.7 11.1 12.0 12.4
15 class
20 class
22 class
25 class
35 class
42 class (MXZ-2B52VA)
Heating capacity
Capacity correction factors
Indoor intake air Dry-bulb temperature (°C)
Outdoor intake air Wet-bulb temperature (°C)
Total input (heating)
Input correction factors
Indoor intake air Dry-bulb temperature (°C)
Outdoor intake air Wet-bulb temperature (°C)

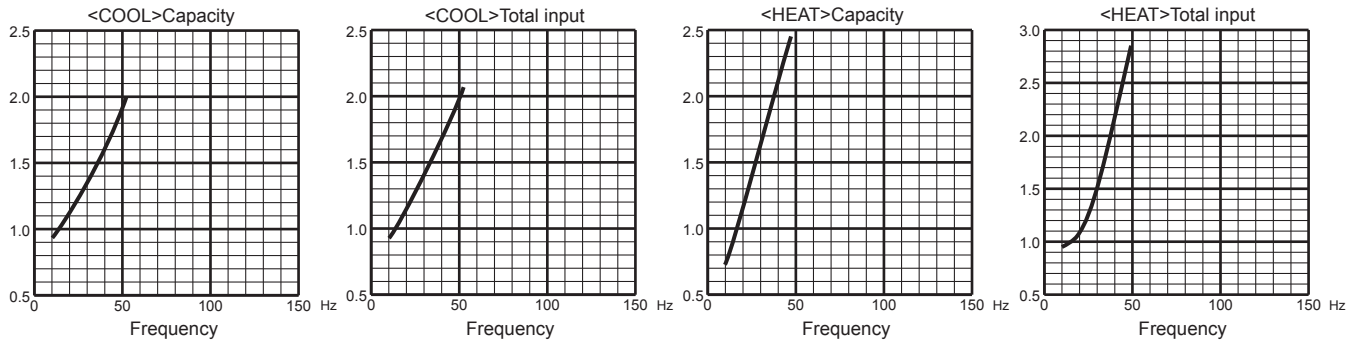
MXZ-3B54VA MXZ-3B68VA
MXZ-4B71VA


Indoor air Wet-bulb temperature difference (degree)
6.3 8.0 8.5 9.3 10.6 9.5 13.1 13.7
5.8 7.3 7.8 8.5 9.7 8.7 11.9 12.4
5.3 6.7 7.1 7.8 8.8 8.0 10.8 11.3
4.8 6.0 6.4 7.0 7.9 7.2 9.7 10.1
4.3 5.4 5.8 6.3 7.1 6.5 8.7 9.0
3.9 4.8 5.1 5.6 6.3 5.7 7.7 8.0
15 class
20 class
22 class
25 class
35 class
42 class
50 class
60 class
Cooling capacity
Capacity correction factors
Indoor intake air Wet-bulb temperature (°C)
Outdoor intake air Dry-bulb temperature (°C)
Total input (cooling)
Input correction factors
Indoor intake air Wet-bulb temperature (°C)
Outdoor intake air Dry-bulb temperature (°C)

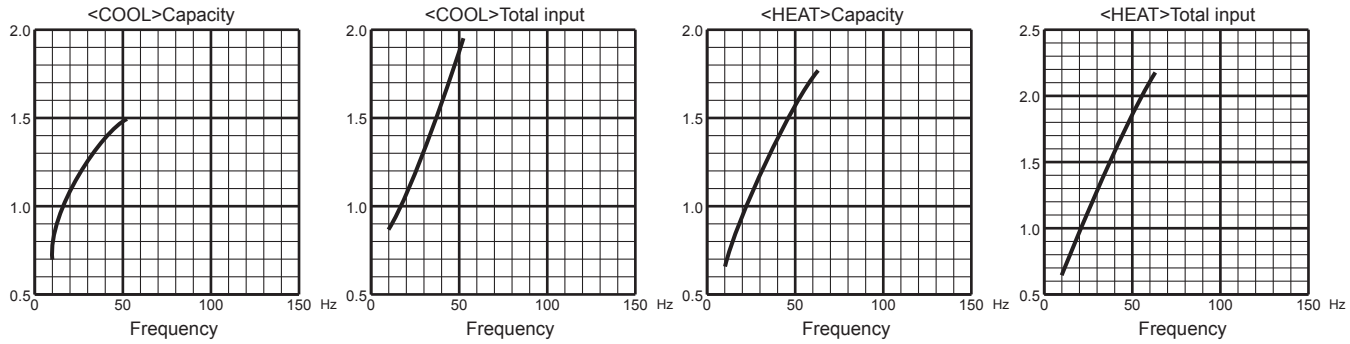

Indoor air Dry-bulb temperature difference (degree)
17.1 19.7 25.4 24.0 25.9 27.0 31.4 31.9
15.8 18.2 23.4 22.2 23.9 24.9 29.0 29.4
14.5 16.7 21.5 20.3 21.9 22.8 26.6 27.0
13.2 15.2 19.5 18.5 19.9 20.7 24.1 24.5
11.8 13.6 17.6 16.6 17.9 18.7 21.7 22.1
10.5 12.1 15.6 14.8 15.9 16.6 19.3 19.6
9.2 10.6 13.7 12.9 13.9 14.5 16.9 17.2
7.9 9.1 11.7 11.1 12.0 12.4 14.5 14.7
15 class
20 class
22 class
25 class
35 class
42 class
50 class
60 class
Heating capacity
Capacity correction factors
Indoor intake air Dry-bulb temperature (°C)
Outdoor intake air Wet-bulb temperature (°C)
Total input (heating)
Input correction factors
Indoor intake air Dry-bulb temperature (°C)
Outdoor intake air Wet-bulb temperature (°C)

MXZ-4B71VA

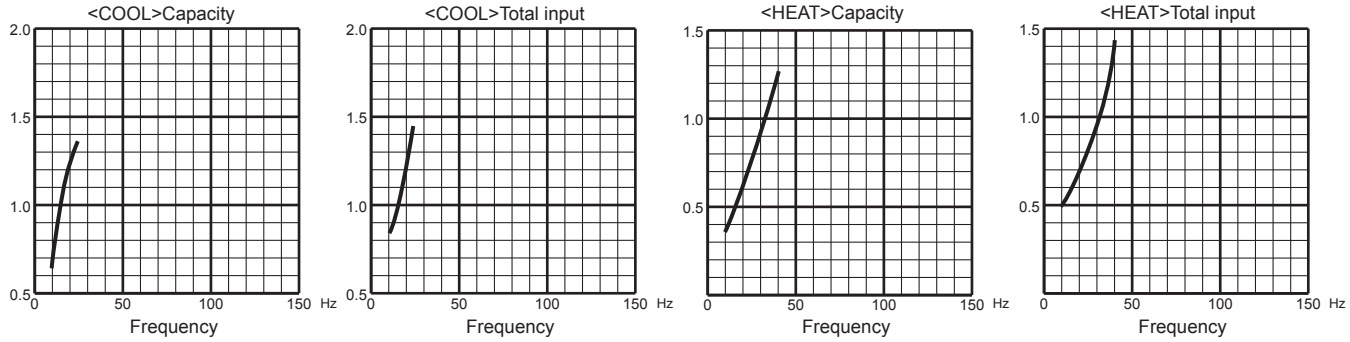
1. 15-class unit in single operation



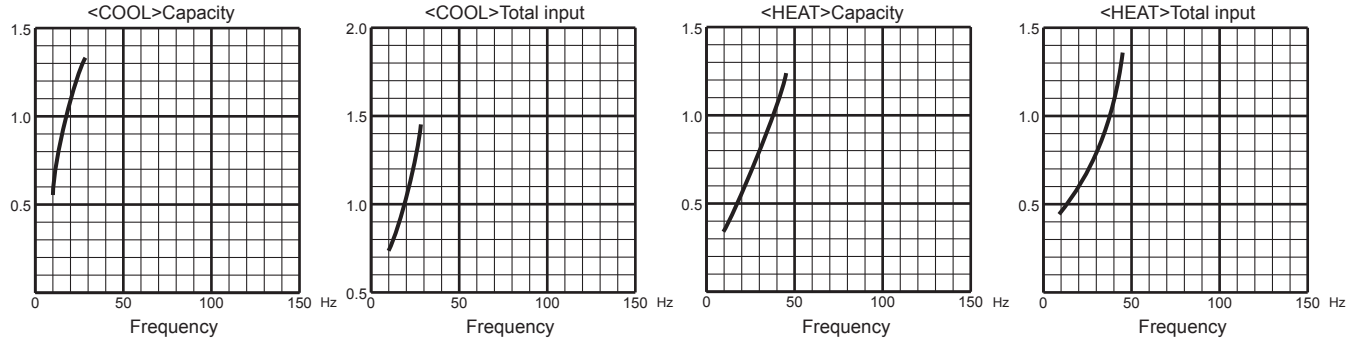
2. 20-class unit in single operation



3. 22-class unit in single operation

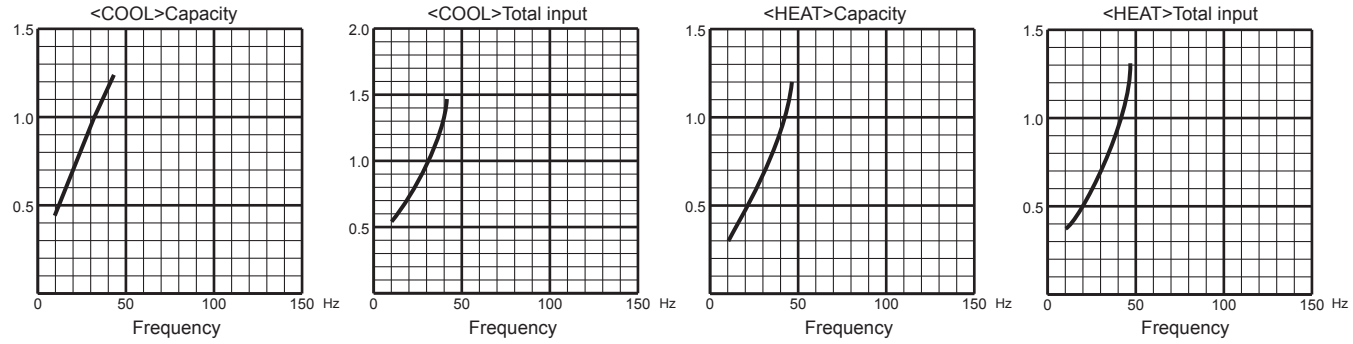


4. 25-class unit in single operation

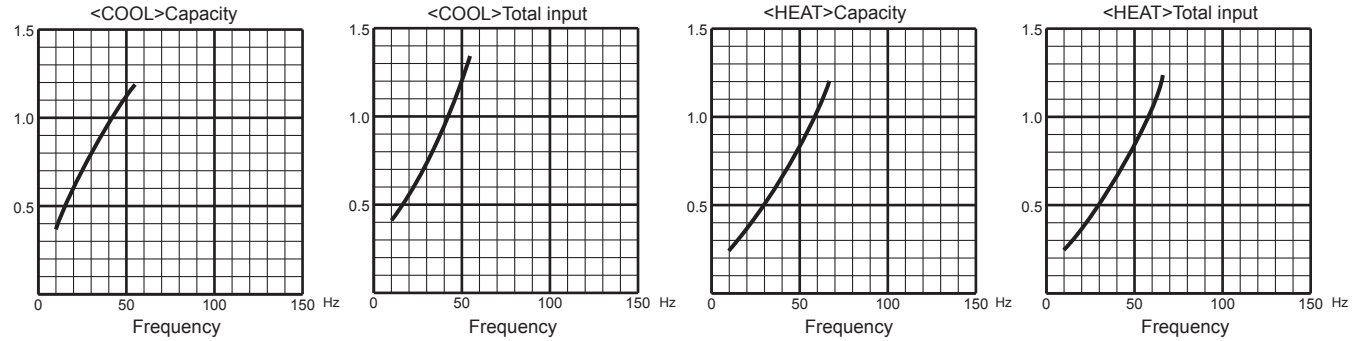


MXZ-4B71VA

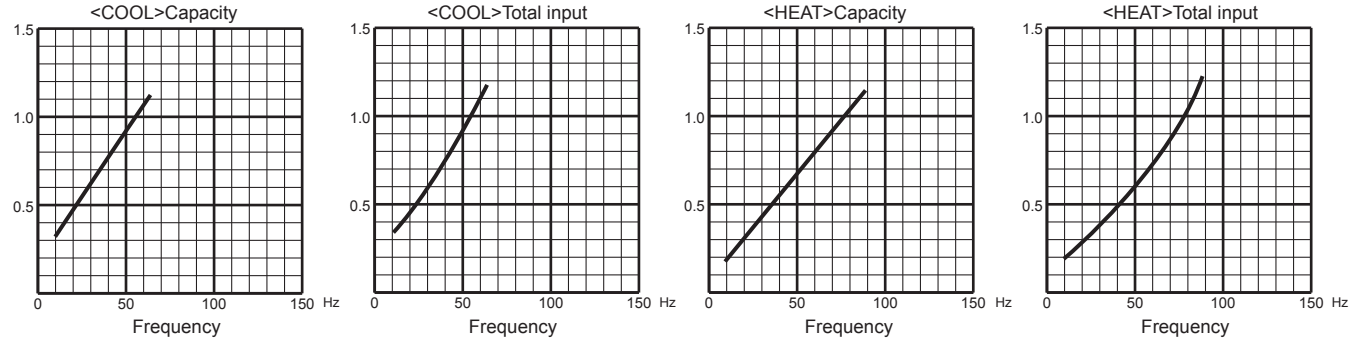
5. 35-class unit in single operation



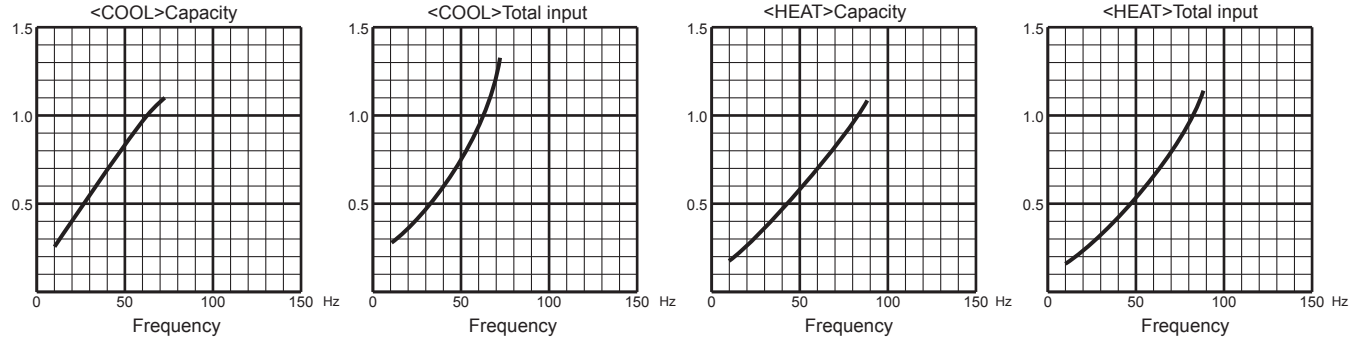
6. 42-class unit in single operation



7. 50-class unit in single operation

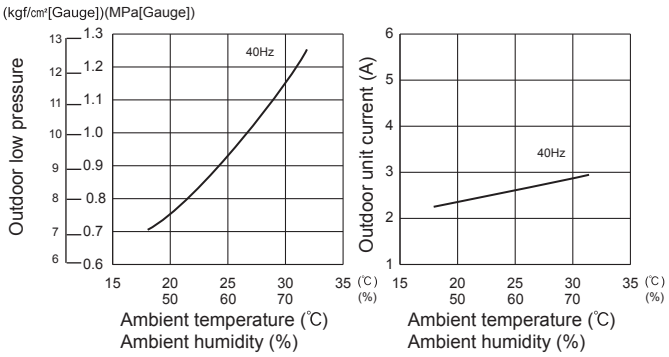


8. 60-class unit in single operation

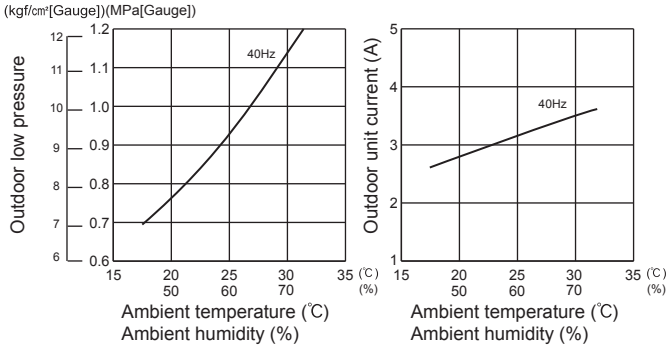


MXZ-3B54VA

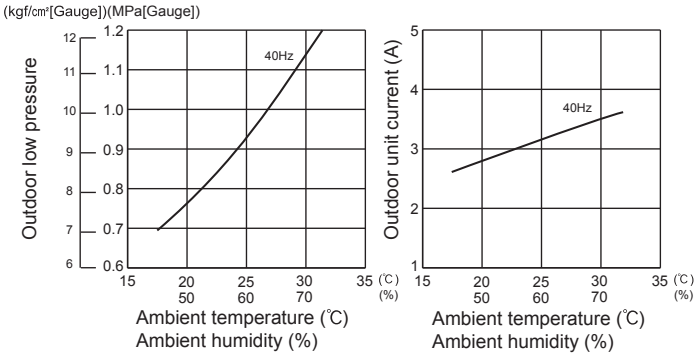
2. 20-class unit in single operation



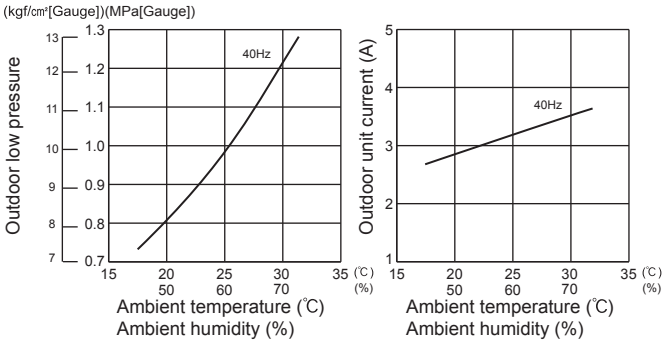
3. 22-class unit in single operation



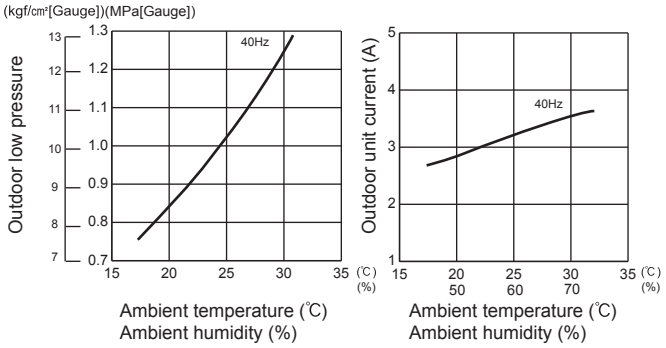
4. 25-class unit in single operation



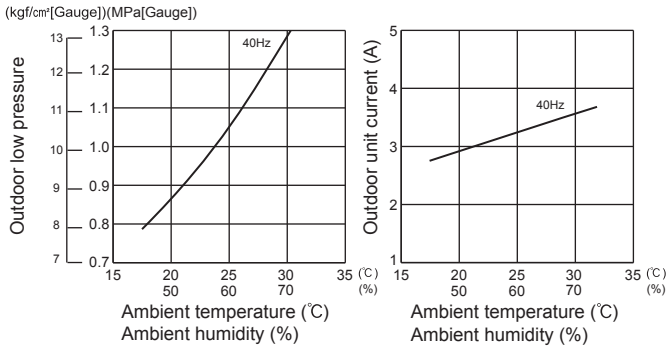
5. 35-class unit in single operation



6. 42-class unit in single operation

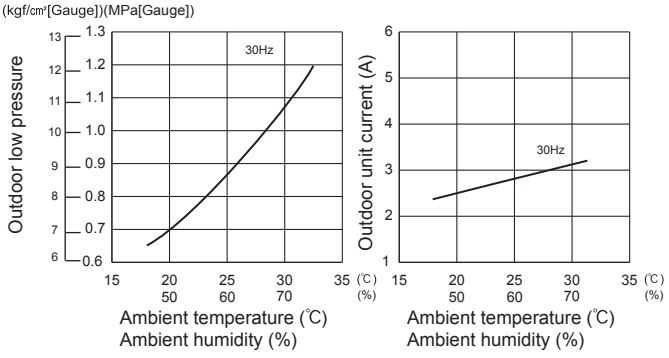


7. 50-class unit in single operation

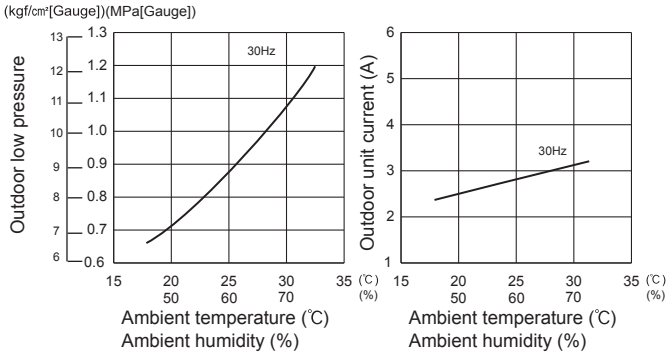


MXZ-3B68VA MXZ-4B71VA

1. 15-class unit in single operation

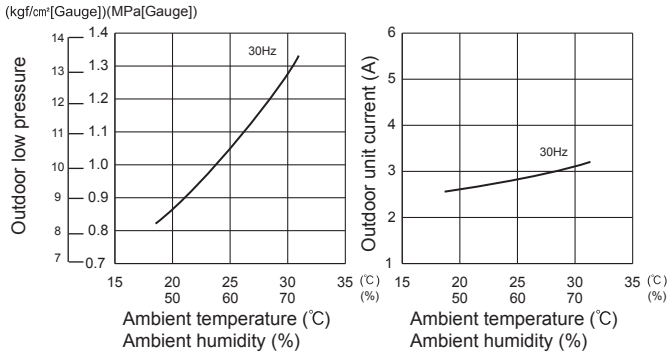


2. 20-class unit in single operation

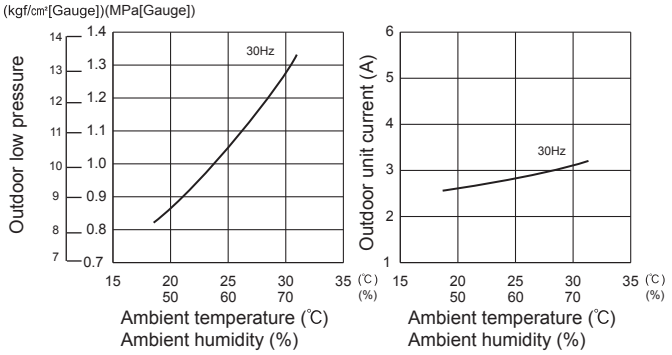


MXZ-3B68VA MXZ-4B71VA

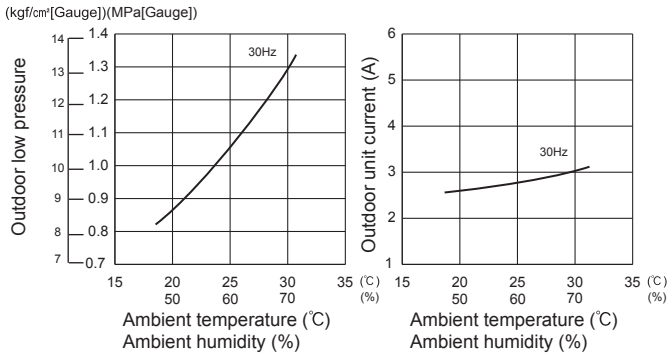
3. 22-class unit in single operation



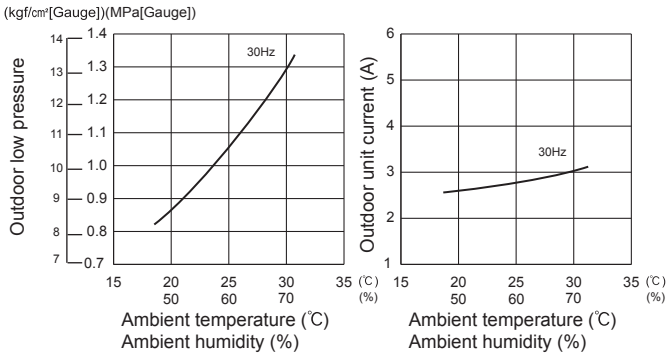
4. 25-class unit in single operation



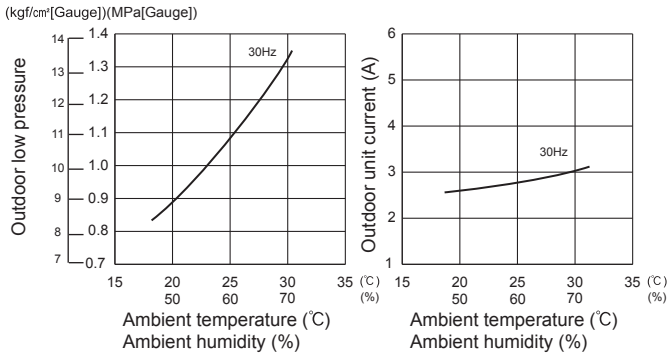
5. 35-class unit in single operation



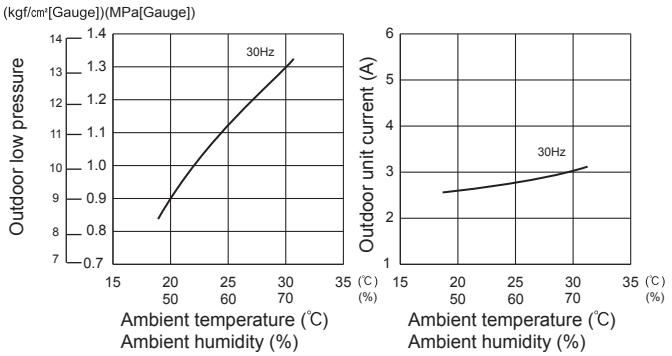
6. 42-class unit in single operation



7. 50-class unit in single operation

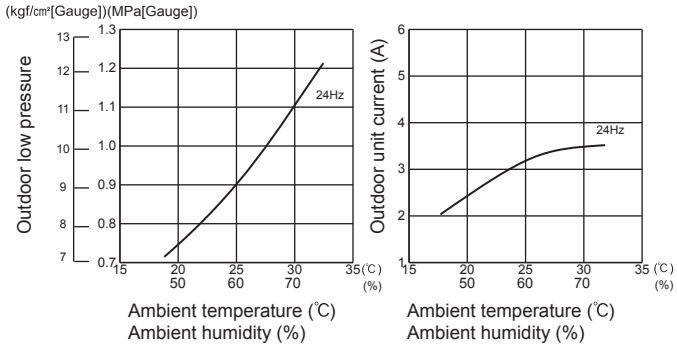


8. 60-class unit in single operation

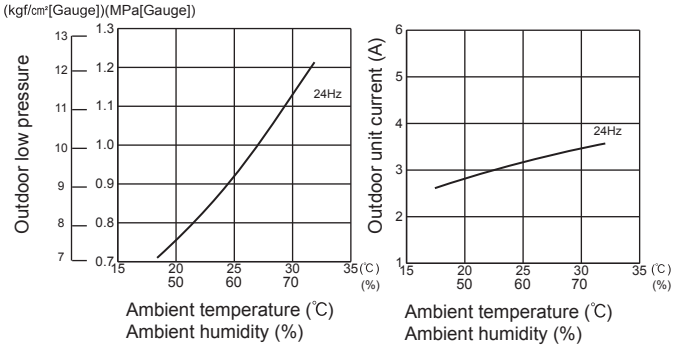


MXZ-4B80VA

1. 15-class unit in single operation

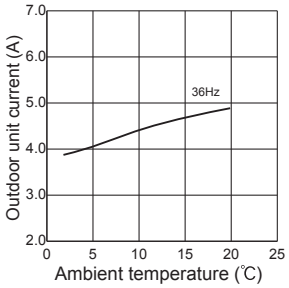


2. 20-class unit in single operation

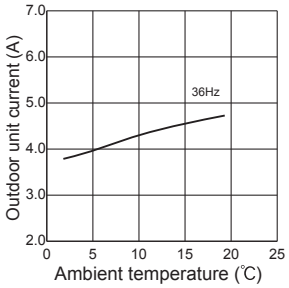


MXZ-3B68VA MXZ-4B71VA

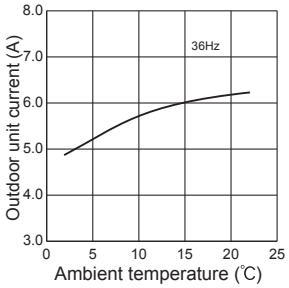
1. 15-class unit in single operation



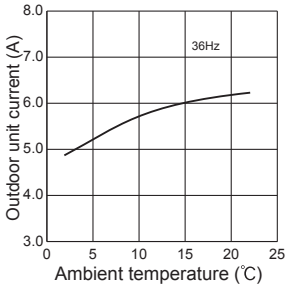
2. 20-class unit in single operation



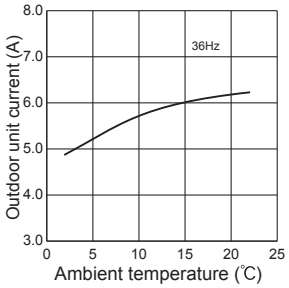
3. 22-class unit in single operation



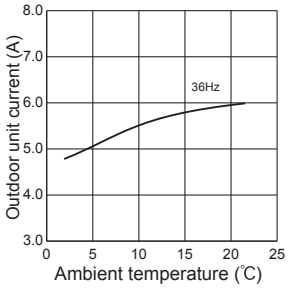
4. 25-class unit in single operation



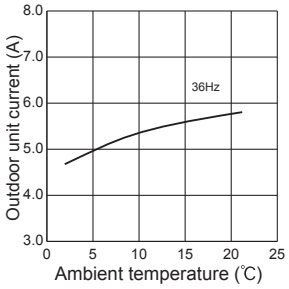
5. 35-class unit in single operation



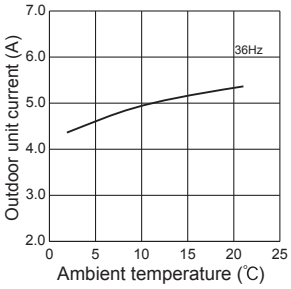
6. 42-class unit in single operation



7. 50-class unit in single operation

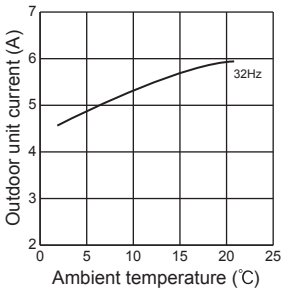


8. 60-class unit in single operation

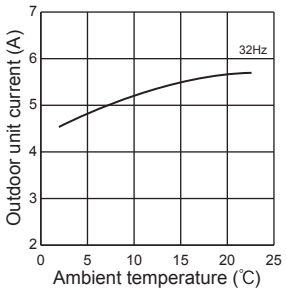


MXZ-4B80VA

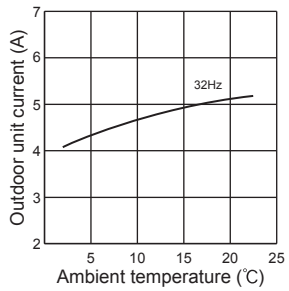
1. 15-class unit in single operation



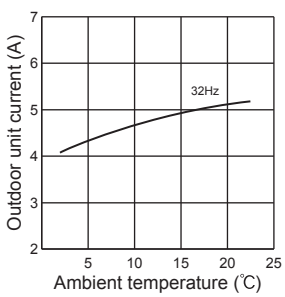
2. 20-class unit in single operation



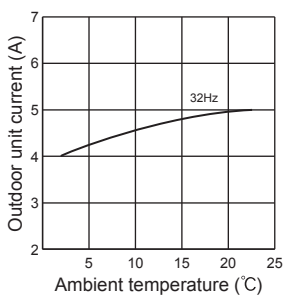
3. 22-class unit in single operation



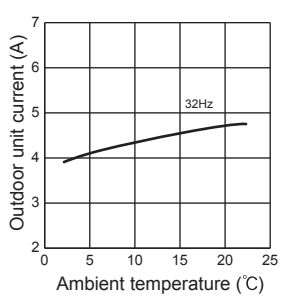
4. 25-class unit in single operation



5. 35-class unit in single operation



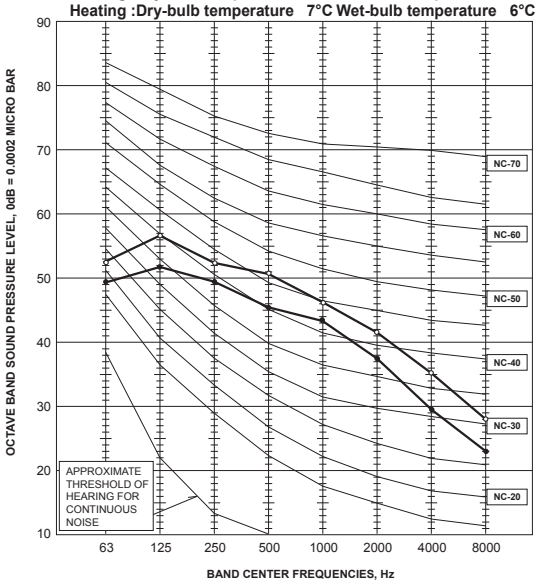
6. 42-class unit in single operation



MXZ-3B68VA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	Cooling	48	●—●
High	Heating	52	○—○

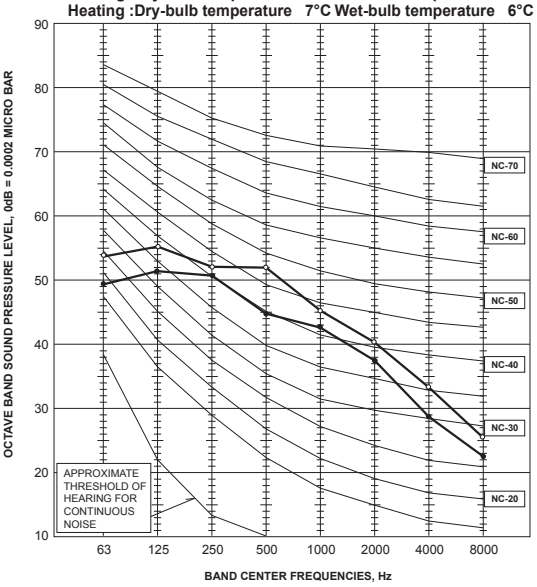
Test conditions
Cooling :Dry-bulb temperature 35°C Wet-bulb temperature 24°C
Heating :Dry-bulb temperature 7°C Wet-bulb temperature 6°C



MXZ-4B71VA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	Cooling	48	●—●
High	Heating	52	○—○

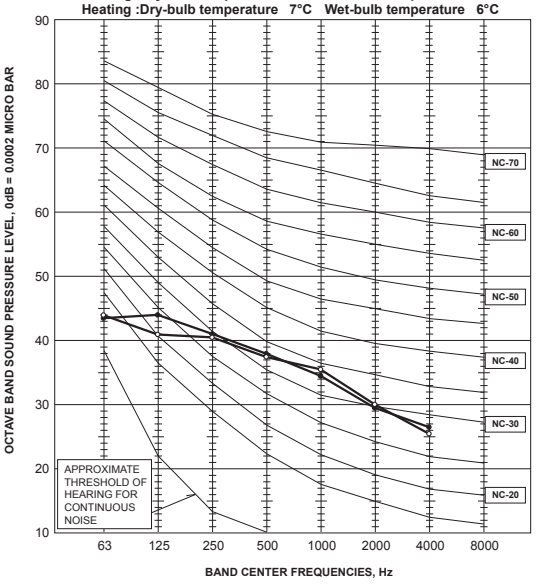
Test conditions
Cooling :Dry-bulb temperature 35°C Wet-bulb temperature 24°C
Heating :Dry-bulb temperature 7°C Wet-bulb temperature 6°C



MXZ-4B80VA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	Cooling	46	●—●
High	Heating	48	○—○

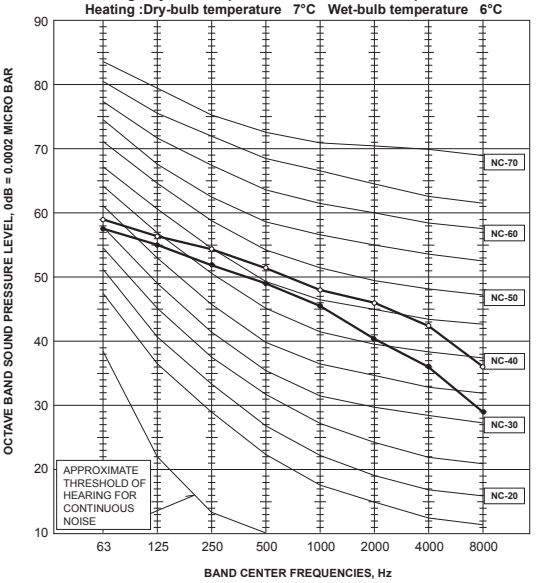
Test conditions
Cooling :Dry-bulb temperature 35°C Wet-bulb temperature 24°C
Heating :Dry-bulb temperature 7°C Wet-bulb temperature 6°C



MXZ-5B100VA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	Cooling	51	●—●
High	Heating	54	○—○

Test conditions
Cooling :Dry-bulb temperature 35°C Wet-bulb temperature 24°C
Heating :Dry-bulb temperature 7°C Wet-bulb temperature 6°C



C.4.7 TROUBLESHOOTING

C.4.7.1 MXZ Series

MXZ-2B30VA MXZ-2B40VA MXZ-2B52VA MXZ-3B54VA MXZ-3B68VA MXZ-4B71VA MXZ-4B80VA MXZ-5B100VA MXZ-8A140VA

Failure mode recall function

This air conditioner can memorize the abnormal condition which has occurred once.
Even though LED indication listed on the troubleshooting check table disappears, the memorized failure details can be recalled.
This mode is very useful when the unit needs to be repaired for the abnormality which does not recur.

1. Type of failure mode recall function

There are 2 types in failure mode recall function as shown below.

① Indoor and outdoor unit failure mode recall function
With this function, failure mode of indoor unit and a part of failure mode of outdoor unit can be recalled.

② The details of outdoor unit failure mode recall function
With this function, more detailed failure mode of outdoor unit can be recalled.

Refer to the service manual of indoor unit for how to recall the failure mode and the details of indoor unit failure mode.
The outdoor unit failure mode is indicated by the operation indicator lamp on the indoor unit and the LED of outdoor unit.
See "Failure mode table".

These explanation are excerpted from the installation manual.

MXZ-3B54VA MXZ-3B68VA MXZ-4B71VA

SPECIFICATIONS

Model	Power supply *1			Wire specifications *2		Pipe length and height difference *4, *5, *6, *10			
	Rated Voltage	Frequency	Breaker capacity	Power supply	Indoor/outdoor connecting wire	Max. pipe length per indoor unit / for multi-system	Max. height difference	Max. no. of bends per indoor unit / for multi system	Refrigerant adjustment A *7
MXZ-3B54VA	230 V	50 Hz	25 A	3-core 2.5 mm^2	4-core 1.0/1.5 mm^2	25 m / 50 m	15 m	25 / 50	20 g/m
MXZ-3B68VA						25 m / 60 m			
MXZ-4B71VA								25 / 60	

*1 Connect to the power switch which has a gap of 3 mm or more when open to interrupt the source power phase. (When the power switch is shut off, it must interrupt all phases.)
*2 Use wires in conformity with design 60245 IEC 57. Use the indoor/outdoor connecting wire in conformity with the wire specifications specified in the installation manual of the indoor unit.
*3 Never use pipes with thickness less than specified. The pressure resistance will be insufficient.
*4 Use a copper pipe or a copper-alloy seamless pipe.
*5 Be careful not to crush or bend the pipe during pipe bending.
*6 Refrigerant pipe bending radius must be 100 mm or more.
*7 If pipe length exceeds 40 m, additional refrigerant (R410A) charge is required. (No additional charge is required for pipe length less than 40 m.) Additional refrigerant = A × (pipe length (m) - 40)
*8 Insulation material : Heat resisting foam plastic 0.045 specific gravity
*9 Be sure to use the insulation of specified thickness. Excessive thickness may cause incorrect installation of the indoor unit and insufficient thickness may cause dew drippage.
*10 If the outdoor unit is installed higher than the indoor unit, max. height difference is reduced to 10 m.

SELECTING PIPE SIZE AND OPTIONAL DIFFERENT-DIAMETER JOINTS

The diameter of connection pipes differs according to the type and capacity of indoor units. Match the diameters of connection pipes for indoor and outdoor units according to the following table.

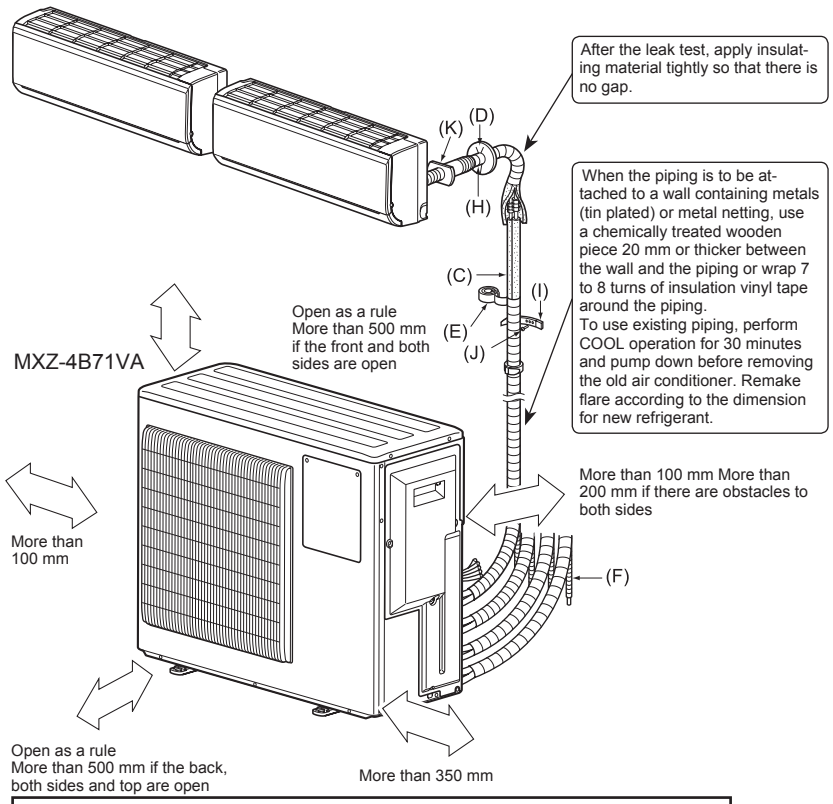
- If the diameter of connection pipes does not match the diameter of pipe end connections, use optional different-diameter joints.

(Unit: mm)

Outdoor unit				Indoor unit		
				15/20/22/25/35/42	50	60
MXZ-3B54VA	MXZ-3B68VA	MXZ-4B71VA	Pipe size liquid (Wall thickness) / gas (Wall thickness)	6.35 (0.8) / 9.52 (0.8)	6.35 (0.8) / 12.7 (1.0)	6.35 (0.8) / 15.88 (1.0)
-		A UNIT	6.35 (0.8) / 12.7 (1.0)	- / MAC-A455JP	- / -	- / MAC-A456JP
A UNIT		B UNIT	6.35 (0.8) / 9.52 (0.8)	- / -	- / MAC-454JP	- / PAC-SG76RJ
B UNIT		C UNIT				
C UNIT		D UNIT				

If you use commercially available copper pipes, use the C1220t for the R410A.

INSTALLATION DIAGRAM


After the leak test, apply insulating material tightly so that there is no gap.
When the piping is to be attached to a wall containing metals (tin plated) or metal netting, use a chemically treated wooden piece 20 mm or thicker between the wall and the piping or wrap 7 to 8 turns of insulation vinyl tape around the piping.
To use existing piping, perform COOL operation for 30 minutes and pump down before removing the old air conditioner. Remake flare according to the dimension for new refrigerant.
(K)
(D)
(H)
(C)
(I)
(E)
(J)
(F)
MXZ-4B71VA
Open as a rule
More than 500 mm
if the front and both
sides are open
More than 100 mm More than 200 mm if there are obstacles to both sides
More than
100 mm
Open as a rule
More than 500 mm if the back, both sides and top are open
More than 350 mm

Units should be installed by licensed contractor according to local code requirements.

ACCESSORIES

Check the following parts before installation.

(1)	Drain socket	1
(2)	Drain cap	2

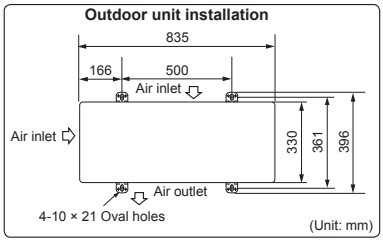
PARTS TO BE PROVIDED AT YOUR SITE

(A)	Power supply cord*	1
(B)	Indoor/outdoor unit connecting wire*	1
(C)	Extension pipe (Refer to 1-4.)	1
(D)	Wall hole cover	1
(E)	Piping tape	1
(F)	Extension drain hose (or soft PVC hose, 15 mm inner diameter or hard PVC pipe VP16)	1
(G)	Refrigeration oil	Little amount
(H)	Putty	1
(I)	Pipe fixing band	2 to 7
(J)	Fixing screw for (I)	2 to 7
(K)	Wall hole sleeve	1
(L)	Soft PVC hose, 15 mm inner diameter or hard PVC pipe VP16 for drain socket	1

*** Note:**

Place indoor/outdoor unit connecting wire (B) and power supply cord (A) at least 1 m away from the TV antenna wire.

The “Q’ty” for (B) to (K) in the above table is quantity to be used per indoor unit.



C.4.9 ACTUATOR CONTROL

C.4.9.1 MXZ Series

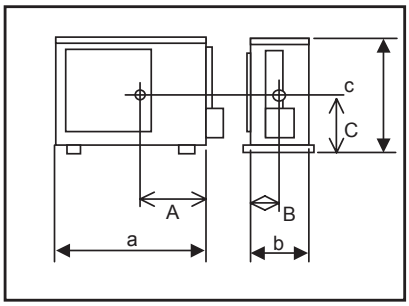
MXZ-2B30VA MXZ-2B40VA MXZ-2B52VA MXZ-3B54VA MXZ-3B68VA MXZ-4B71VA MXZ-4B80VA MXZ-5B100VA

Relation between main sensor and actuator

Sensor	Purpose	Actuator			
		Compressor	LEV	Outdoor fan motor	Reversing valve
Discharge temperature thermistor	Protection	○	○		
Indoor coil thermistor	Defrosting Protection	○	○	○	
Defrost thermistor	Defrosting	○	○	○	○
Fin temperature thermistor	Protection	○		○	
Ambient temperature thermistor	Control	○	○	○	
Outdoor heat exchanger temperature	Protection	○	○	○	
Capacity code	Control	○	○		

C.4.10 CENTER OF GRAVITY POSITION

Unit: mm



Outdoor unit	A	B	C	a	b	c
MXZ-2B30VA **MXZ-2B40VA** **MXZ-2B52VA**	140	140	240	800	285	550
MXZ-3B54VA **MXZ-3B68VA** **MXZ-4B71VA**	310	170	320	840	330	710
MXZ-4B80VA **MXZ-5B100VA**	390	160	400	900	320	900
MXZ-8A140VA	330	185	500	950	330	1350

Optional Parts List <Indoor>

Option part / Indoor unit			Filter																			i-see sensor corner panel	Shutter plate	Multi-functional casement	Duct flange for fresh air intake		Space panel	Quick clean kit
			Air cleaning filter		Platinum catalyst deodrizing filter	Anti-allergy enzyme filter				Anti-allergen eletric enzyme filter	Catechin air filter		Oil mist filter element	High efficiency filter element				Fileter Box											
			MAC-1300 FT	MAC-1700 FT	MAC-307 FT-E	MAC-2310 FT	MAC-415 FT-E	MAC-408 FT-E	MAC-171 FT-E	MAC-417FT-E	MAC-3003 CF	MAC-3004 CF-E	PAC-SG38 KF-E	PAC-SH59 KF-E	PAC-SH88 KF-E	PAC-SH89 KF-E	PAC-SH90 KF-E	PAC-KE92 TB-E	PAC-KE93 TB-E	PAC-KE94 TB-E	PAC-KE95 TB-E	PAC-SA1 ME-E	PAC-SH51 SP-E	PAC-SH53 TM-E	PAC-SH65 OF-E	PAC-SF28 OF-E	PAC-SH48 AS-E	MAC-093 SS-E
Page			P.8	P.9	P.10	P.11	P.12	P.13	P.14	P.15	P.16	P.17	P.18	P.20	P.22	P.22	P.22	P.23	P.23	P.23	P.23	P.27	P.29	P.31	P.36	P.38	P.39	P.41
M series	Wall Mounted	MSZ-FD25VA(S)			●					●																		●
		MSZ-FD35VA(S)			●					●																		●
		MSZ-FD50VA(S)			●					●																		●
		MSZ-GE22VA						●																				●
		MSZ-GE25VA						●																				●
		MSZ-GE35VA						●																				●
		MSZ-GE42VA						●																				●
		MSZ-GE50VA						●																				●
		MSZ-GE60VA				●																						●
		MSZ-GE71VA				●																						●
		MSZ-HC25VA									●																	
		MSZ-HC35VA									●																	
		MSZ-HC35VAB									●																	
		MSZ-SF15VA																										●
		MSZ-SF20VA																										●
		MSC-GE20VB	●																									
		MSC-GE25VB	●																									
		MSC-GE35VB	●																									
		MSH-GE50VB		●																								
		MSH-GA60VB		●																								
		MSH-GD80VB		●																								
		MS-GE50VB		●																								
		MS-GA60VB		●																								
		MS-GD80VB		●																								
	Floor Standing	MFZ-KA25VA					●																					
		MFZ-KA35VA					●																					
		MFZ-KA50VA					●																					
	1-way Cassette	MLZ-KA25VA							●			●																
		MLZ-KA35VA							●			●																
		MLZ-KA50VA							●			●																
S series	4-way Cassette	SLZ-KA25VA																										
		SLZ-KA25VAL																										
		SLZ-KA35VA																										
		SLZ-KA35VAL																										
		SLZ-KA50VA																										
		SLZ-KA50VAL																										
	Ceiling Concealed	SEZ-KD25VA																										
		SEZ-KD25VAL																										
		SEZ-KD35VA																										
		SEZ-KD35VAL																										
		SEZ-KD50VA																										
		SEZ-KD50VAL																										
		SEZ-KD60VA																										
		SEZ-KD60VAL																										
		SEZ-KD71VA																										
		SEZ-KD71VAL																										
P series	4-way Cassette	PLA-RP35BA												●								●	●	●	●		●	
		PLA-RP50BA												●								●	●	●	●		●	
		PLA-RP60BA												●								●	●	●	●		●	
		PLA-RP71BA2												●								●	●	●	●		●	
		PLA-RP71BA												●								●	●	●	●		●	
		PLA-RP100BA3												●								●	●	●	●		●	
		PLA-RP100BA												●								●	●	●	●		●	
		PLA-RP125BA2												●								●	●	●	●		●	
		PLA-RP125BA												●								●	●	●	●		●	
		PLA-RP140BA2												●								●	●	●	●		●	
	Ceiling Concealed	PEAD-RP35JA(L)																●										
		PEAD-RP50JA(L)																●										
		PEAD-RP60JA(L)																	●									
		PEAD-RP71JA(L)																	●									
		PEAD-RP100JA(L)																		●								
		PEAD-RP125JA(L)																		●								
		PEAD-RP140JA(L)																			●							
		PEA-RP200GA																										
		PEA-RP250GA																										
		PEA-RP400GA																										
		PEA-RP500GA																										
	Wall Mounted	PKA-RP35HAL																										
		PKA-RP50HAL																										
		PKA-RP60KAL																										
		PKA-RP71KAL																										
		PKA-RP100KAL																										
	Ceiling Suspended	PCA-RP50KA													●													
		PCA-RP60KA														●												
		PCA-RP71KA														●												
		PCA-RP100KA															●											
		PCA-RP125KA															●											
		PCA-RP140KA															●											
		PCA-RP71HA											●													●		
		PCA-RP125HA											●													●		
	Floor Standing	PSA-RP71GA																										
		PSA-RP100GA																										
		PSA-RP125GA																										
		PSA-RP140GA																										

*1:In the case the outdoor unit is SUZ or MXZ, the indoor unit of P-series can be connected
*2:In the case the outdoor unit is SUZ or MXZ,the indoor unit of P-series can be connected (MAC-397IF-E required)
*3:MAC-397IF-E is required
*4:Unable to use with wireless remote controller
*5:2 pieces of interface is necessary for 1 indoor unit.

Optional Parts List <Outdoor>

Option part / Outdoor unit		Distribution pipe						Joint pipe									Filter dryer for liquid pipe		
		For twin use (50:50)		For triple use (33:33:33)	For quadruple use (25:25:25:25)	Flare connection type	Brazing type	Unit Φ6.35 --> Pipe Φ9.52	Unit Φ9.52 --> Pipe Φ12.7	Unit Φ12.7 --> Pipe Φ15.88	Unit Φ15.88 --> Pipe Φ19.05	Unit Φ9.52 --> Pipe Φ15.88	Unit Φ6.35 --> Pipe Φ9.52	Unit Φ9.52 --> Pipe Φ12.7	Unit Φ12.7 --> Pipe Φ9.52	Unit Φ12.7 --> Pipe Φ15.88	For pipe Φ6.35	For pipe Φ9.52	For pipe Φ12.7
		MSDD-50TR-E	MSDD-50WR-E	MSDT-111R-E	MSDF-1111R-E	MSDD-50AR-E	MSDD-50BR-E	PAC-SG72RJ-E	PAC-SG73RJ-E	PAC-SG74RJ-E	PAC-SG75RJ-E	PAC-SG76RJ-E	PAC-493PI	MAC-A454JP-E	MAC-A455JP-E	MAC-A456JP-E	PAC-SG81DR-E	PAC-SG82DR-E	PAC-SG85DR-E
Page		P.152	P.154	P.156	P.158	P.160	P.162	P.164	P.165	P.166	P.167	P.168	P.169	P.170	P.171	P.172	P.173	P.176	P.179
M series	F series	MUZ-FD25VA																	
		MUZ-FD25VABH																	
		MUZ-FD35VA																	
		MUZ-FD35VABH																	
		MUZ-FD50VA																	
		MUZ-FD50VABH																	
	G series	MUZ-GE25VA																	
		MUZ-GE25VAH																	
		MUZ-GE35VA																	
		MUZ-GE35VAH																	
		MUZ-GE42VA																	
		MUZ-GE42VAH																	
		MUZ-GE50VA																	
		MUZ-GE50VAH																	
		MUZ-GE60VA																	
		MUZ-GE71VA																	
	H series	MUZ-HC25VA																	
		MUZ-HC35VA																	
		MUZ-HC35VAB																	
	Fixed Speed (Heating&Cooling)	MUH-GA20VB																	
		MUH-GA25VB																	
		MUH-GA35VB																	
		MUH-GE50VB																	
		MUH-GA60VB																	
		MUH-GD80VB																	
	Fixed Speed (Cooling Only)	MU-GA20VB																	
		MU-GA25VB																	
		MU-GA35VB																	
		MU-GE50VB																	
		MU-GA60VB																	
		MU-GD80VB																	
S series		SUZ-KA25VA																	
		SUZ-KA25VAH																	
		SUZ-KA35VA							●										
		SUZ-KA35VAH							●										
		SUZ-KA50VA							●										
		SUZ-KA60VA							●										
		SUZ-KA71VA							●										
P series	ZUBADAN	PUHZ-HRP71VHA2	●															●	
		PUHZ-HRP100VHA2	●															●	
		PUHZ-HRP100YHA2	●															●	
		PUHZ-HRP125YHA2	●															●	
	Power Inverter	PUHZ-RP35VHA4							●										
		PUHZ-RP50VHA4							●										
		PUHZ-RP60VHA4								●		●						●	
		PUHZ-RP71VHA4	●							●		●						●	
		PUHZ-RP100VKA	●							●		●						●	
		PUHZ-RP100YKA	●							●		●						●	
		PUHZ-RP125VKA	●							●		●						●	
		PUHZ-RP125YKA	●							●		●						●	
		PUHZ-RP140VKA	●		●					●		●						●	
		PUHZ-RP140YKA	●		●					●		●						●	
		PUHZ-RP200YKA		●	●	●				●								●	
		PUHZ-RP250YKA		●	●	●					●								●
	Standard Inverter	PUHZ-P100VHA3	●															●	
		PUHZ-P100YHA	●															●	
		PUHZ-P125VHA3	●															●	
		PUHZ-P125YHA	●															●	
		PUHZ-P140VHA3	●		●													●	
		PUHZ-P140YHA	●		●													●	
		PUHZ-P200YHA3		●	●	●												●	
		PUHZ-P250YHA3		●	●	●													●
	Fixed Speed (Heating&Cooling)	PUH-P71VHA	●															●	
		PUH-P71YHA	●															●	
		PUH-P100VHA	●															●	
		PUH-P100YHA	●															●	
		PUH-P125YHA	●															●	
		PUH-P140YHA	●		●													●	
	Fixed Speed (Cooling Only)	PU-P71VHA	●															●	
		PU-P71YHA	●															●	
		PU-P100VHA	●															●	
		PU-P100YHA	●															●	
		PU-P125YHA	●															●	
		PU-P140YHA	●		●													●	
MXZ series		MXZ-2B30VA																	
		MXZ-2B40VA																	
		MXZ-2B52VA																	
		MXZ-3B54VA													●				
		MXZ-3B68VA											●		●				
		MXZ-4B71VA											●		●	●	●		
		MXZ-4B80VA											●	●	●	●	●		
		MXZ-5B100VA											●	●	●	●	●		
		MXZ-8A140VA					●	●					●	●	●		●		●